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THE
NATURAL HISTORY
OF
BRITISH INSECTS;

EXPLAINING THEM
IN THEIR SEVERAL STATES,
WITH THE PERIODS OF THEIR TRANSFORMATIONS,
THEIR FOOD, ECONOMY, &c.

TOGETHER WITH THE
HISTORY OF SUCH MINUTE INSECTS
AS REQUIRE INVESTIGATION BY THE MICROSCOPE.

THE WHOLE ILLUSTRATED BY
COLOURED FIGURES,
DESIGNED AND EXECUTED FROM LIVING SPECIMENS.

By E. DONOVAN, F. L. S. AND W. S.

IN TEN VOLUMES.

A NEW EDITION.

VOL. I.

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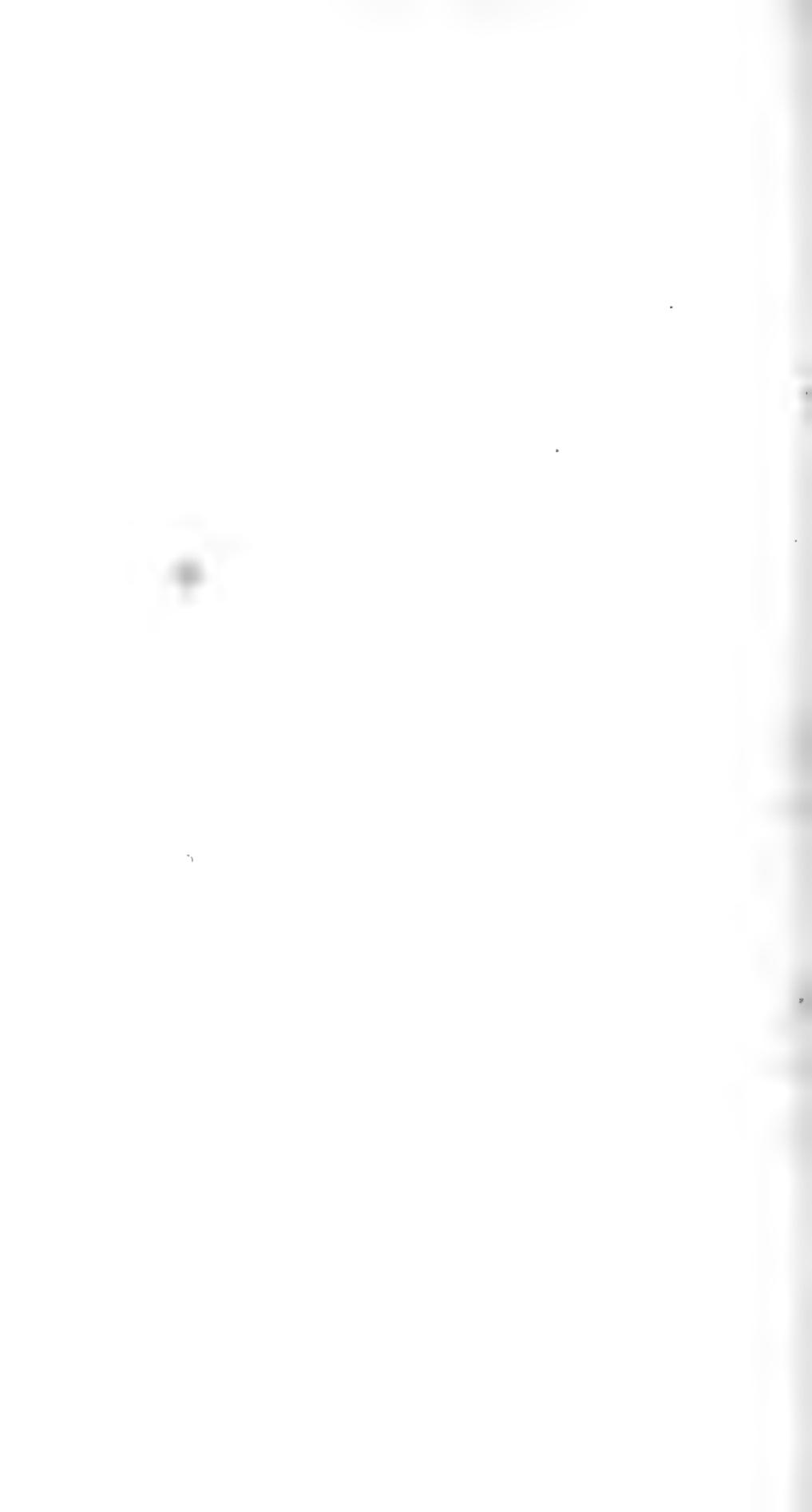
NATURAL HISTORY

OF

BRITISH INSECTS

Printed by Low and Gilbert, St. John's Square, Clerkenwell.





A

S L I G H T S K E T C H

OF THE

A N I M A L S Y S T E M.

LINNÆUS divided the Animal System into six classes.

Class I. **MAMMALIA.** Suckle their young.

II. **AVES.** (Birds) covered with feathers.

III. **AMPHIBIA.** Lungs arbitrary.

IV. **PISCES.** (Fishes) breath by gills not arbitrarily.

V. **INSECTA.** (Insects) two antennæ.

VI. **VERMES.** No head.

Insects therefore compose the fifth Class in the System, and are divided into seven Orders.

Order I. **COLEOPTERA.** Wings two, covered by two shells, divided by a longitudinal suture.

II. **HEMIPTERA.** Shells or covers of the wings somewhat soft, and incumbent on each other.

III. **LEPIDOPTERA.** Wings four, imbricated with minute scales.

IV. NEUROPTERA. Wings four, naked, transparent, reticulated, with veins or nerves. Tail without sting.

V. HYMENOPTERA. Wings four. Membraneous. Tail of the female armed with a sting.

VI. DIPTERA. Wings two.

VII. APTERA. No wings.

TRANSFORMATIONS OF INSECTS,

Many of our readers are no doubt acquainted with the singular transformations Insects undergo, but we trust those will pardon a digression which may be useful to those who have not that knowledge; and without premising farther we proceed to inform them, that Insects in general undergo a material change in their form at stated periods of their lives; there are some, though few, which burst forth from the egg perfectly formed, as *Spiders*, &c. but the greater part exist in four several states: the first that of the egg, whence the Larva, or Caterpillar is produced; it is at first very minute, but in this state it feeds, some kinds on one or two plants only, others promiscuously on many, they therefore continue to increase in size, moulting several times the outer skin, until the destined period of their dormant state approaches; they then spin a web more or less strong according to the species, and are converted into the aurelia, or chrysalis; and lastly they burst forth in due season perfectly formed. It is under this form they propagate a future race, and themselves perish, as they rarely survive the inclemencies of the winter.

The antient naturalists held suppositions very imperfect and erroneous relative to those transformations, but *Malpighi* and *Swammerdam* proved by many accurate examinations clearly, that those changes were not suddenly effected, but gradual; and that under the form of the Caterpillar they could distinguish the future changes the Insect would undergo.



PLATE XII.

CICINDELA CAMPESTRIS.

SPARKLER.

GENERIC CHARACTER.

Antennæ setaceous. Palpi fix, filiform; jaws prominent, with many teeth. Eyes prominent. Thorax roundish, and margined.

SPECIFIC CHARACTER.

Green: five white spots on the wing-caes.

CICINDELA CAMPESTRIS: *viridis*, *elytris punctis quinque albis.*
Linn. Fn. Suec. 746.—Gmel. Syst. Nat. 1920. Sp. 1.

Those beautiful Insects vary something in size and colour, the spots on the elytra are generally white, but are often found with spots of yellow; they fly or run quick, are carnivorous, and live in dry sandy places. In the spring its larva is found, which resembles a long, soft, whitish worm, with six legs and a brown scaly head; it perforates the sand perpendicularly, and rests near the surface to ensnare smaller insects.

It is very difficult, if at all possible, to breed those insects and observe their metamorphoses; we have tried various methods, but have not yet been so fortunate as to succeed.







2



PLATE CCCLI.

FIG. I.

CICINDELA SYLVATICA.

GENERIC CHARACTER.

Antennæ setaceous. Maxillæ or jaws advanced considerably before the head. Eyes prominent. Thorax roundish and margined.

SPECIFIC CHARACTER.

Black, a white waved band, and two dots of the same colour on the Wing-cafes.

CICINDELA SYLVATICA : nigra, elytris fascia undata punctisque duobus albis. *Linn. Gmel. T. I. p. 4. p. 1922. sp. 8.*

Cicindela atra, coleopteris maculis sex albida fasciaque albis. Faun. Suec. I. n. 549.

Cicindela supra nigra, subtus viridis nitida, &c. Degeer. Inf. 4. p. 114. t. 4. f. 7.

A very scarce English Insect.

FIG.

FIG. II.

CICINDELA AQUATICA.

SPECIFIC CHARACTER.

Shining, bronzed, head striated.

CICINDELA AQUATICA: *ænca nitida*, capite striato. *Linn. a Gmel.*
T. I. p. 4. p. 1925. sp. 14.—Fn. Sv. 752.

CICINDELA PUSILLA. *Schreb. Inf. 6.*

Buprestis fusco-æneus. Geoff. Inf. p. I. p. 157. n. 31.

Extremely common in some moist situations.









PLATE CCCI.

CICINDELA RIPARIA.

GENERIC CHARACTER.

Antennæ setaceous. Jaws advanced and armed with teeth. Eyes prominent. Thorax roundish and margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Greenish, bronzed, with many excavated round spots on the wing-cases.

CICINDELA RIPARIA : *viridi-aenea*, *elytris punctis latis excavatis*.

Fn. Suec. 741. *Gmel. Linn. Syst. T. 1. p. 4. p. 1925.*
fp. 10.

Cicindela viridi-aenea maculis rotundis excavatis griseo-viridibus.

Degeer. Inf. 4. p. 117. n. 4. t. 4. f. 9.

We found this beautiful species in some plenty in a little marshy spot behind the town of Newton, on the sea shore of Glamorganshire. Gmelin says it is found in wet places, and observes that its colour often varies.

It is a minute insect, and is represented magnified in the annexed plate.

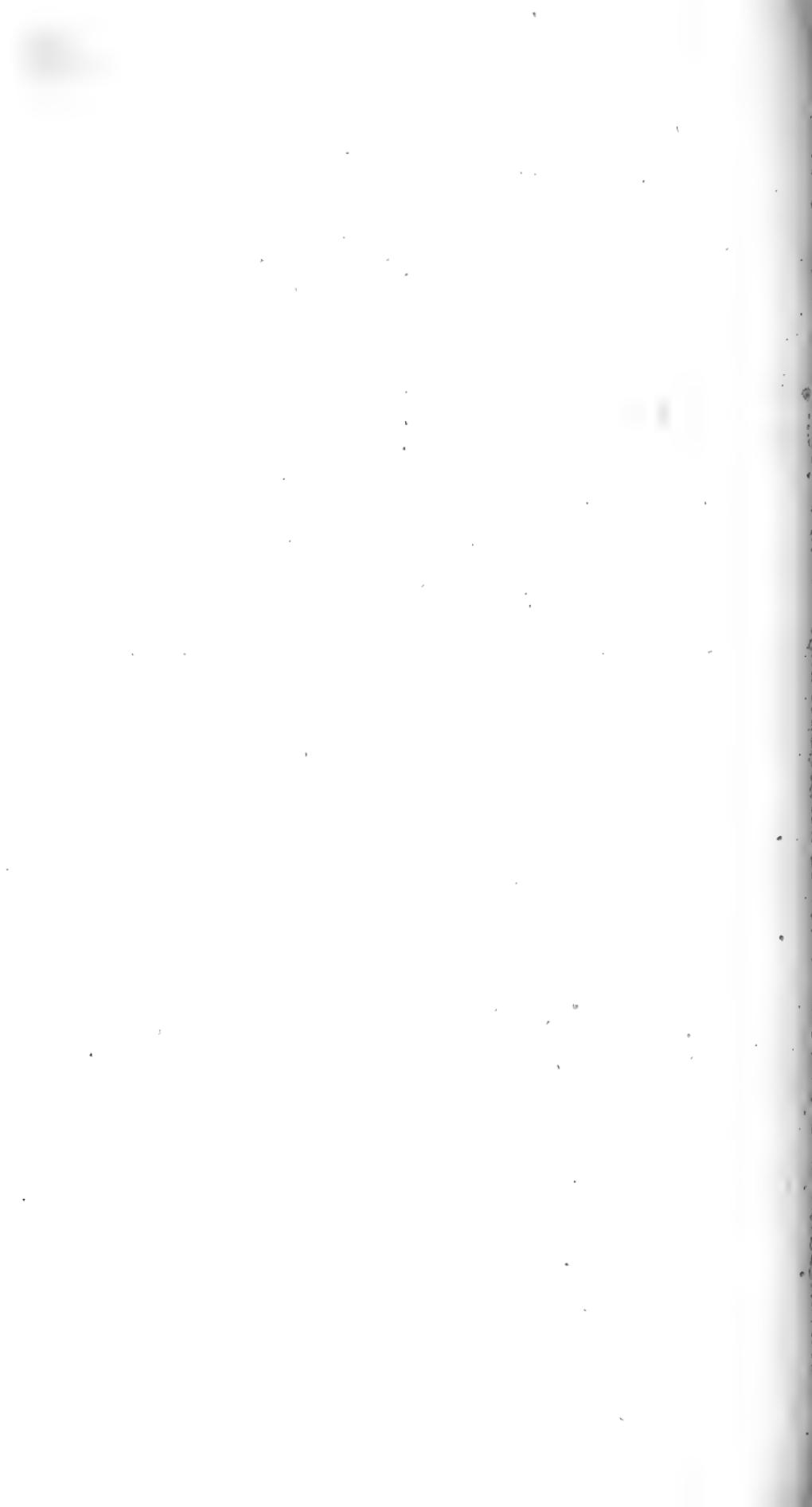




PLATE DIV.

FIG. I.

CARABUS INQUISITOR.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated: thorax flat, and margined: wing-cases inmarginate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wing-cases striated, brassy-green, with three rows of dots.

CARABUS INQUISITOR: elytris striatis viridi-æneis: punctis triplici ordine. *Linn. Syst. Nat.* 669. 11.—*Fn. Suec.* 789.—*Gmel. Syst. Nat.* 1965. 11.—*Fabr. Syst. Ent.* 239. 18.—*Spec. Inf.* 1. 303. 23.—*Mant.* 1. 197. 31.—*Paykull. Monogr.* 39.—*Fn. Suec.* 1. 127. 40.—*Panzer. Ent. Germ.* 54. 50.—*Marsh. Ent. Brit.* T. 1. p. 448.

Le Bupreste quarré couleur de brouze antique. *Geoff.* 1. 145. 6.
Buprestis Sycophanta minor. *Panz. Voet.* 2. 86. 39. t. 38. f. 39.

A rare species in Britain: it has been taken in Norfolk.

FIG. II.

CARABUS ROSTRATUS.

SNOUTED CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous : wing-cases smooth and black : thorax narrow : head very slender.

CARABUS ROSTRATUS : apterus, elytris laeviusculis nigris thorace angustiori, capite angustissimo. *Fabr. Syst. Ent.* 240. 21.—*Spec. Inf.* 1. 304. 26.—*Mant.* 1. 198. 36.—*Ent. Syst.* 1. a. 131. 31.
Paykull. Monog. 26. 14.
Marsh. Ent. Brit. T. 1. p. 470.

TENEBRIO ROSTRATUS. *Linn. Syst. Nat.* 677. 20.—*Fn. Suec.* 823.

CYCHRYS ROSTRATUS. *Payk. Fn. Suec.*

Taken by G. Milne, Esq. F. L. S. The species has been found in Scotland and Devonshire, and though generally esteemed rare, was lately met with in considerable plenty on mountains in Ireland by Mr. W. Leach, F. L. S.





P L A T E CCXXII.

F I G. I.

CARABUS VIOLACEUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous. Thorax somewhat heart shaped, margined. Elytra margined also.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Apterous, black. Margin of the Thorax and Wing cases, glossy violet. Edges smooth.

CARABUS VIOLACEUS apterus niger thorace elytrorumque marginibus violaceis, elytris lœvibus.—*Fab. Ent. Syst.* 1. 19. 125.

Carabus Violaceus. *Paykull Monogr.* 12. 4.
Frisch Inf. 13. *tab.* 23.

The larva of some Carabi live in the ground, others in decayed wood. They prey on the smaller kinds of Insects. Fabricius describes one hundred and ninety-five species; a considerable number of these are natives of Europe. Carabus Violaceus is found in fields.

D

F I G.

FIG. II.

CARABUS GEMMATUS.

COLEOPTERA.

CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous, black. Wing cases marked with striæ; and three rows of bronzed indented double spots.

CARABUS GEMMATUS apterus niger elytris striatis: punctis æneis bilobis excavatis triplice serie.—*Fab. Ent. Syft.* 1. 19. 127.

Carabus striatus.—*Degeer Inf.* 4. 90. 5. *tab. 3. fig. 1.*

Carabus gemmatus.—*Paykull Monogr.* 15. 6.

This species has commonly been mistaken for *Carabus horiensis*: the difference, however, between the two Insects, is considerable. The colour of this Beetle is black, glossed with a rich bronze, partaking of a green and golden hue on the wing cases, and a fine purple on the thorax: the underside is plain black.

FIG. III.

CARABUS GRANULATUS.

COLEOPTERA.

CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous, black, bronzed. Wing cases striated; three rows of elevated, or convexed-oblong spots, with an intermediate elevated line on each.

CARABUS GRANULATUS apterus nigricans elytris æneis striatis in-
teriectis punctis elevatis longitudinalibus.—*Lin. Syst. Nat.*—*Fab. Ent. Syst.* 1. 130. 28.

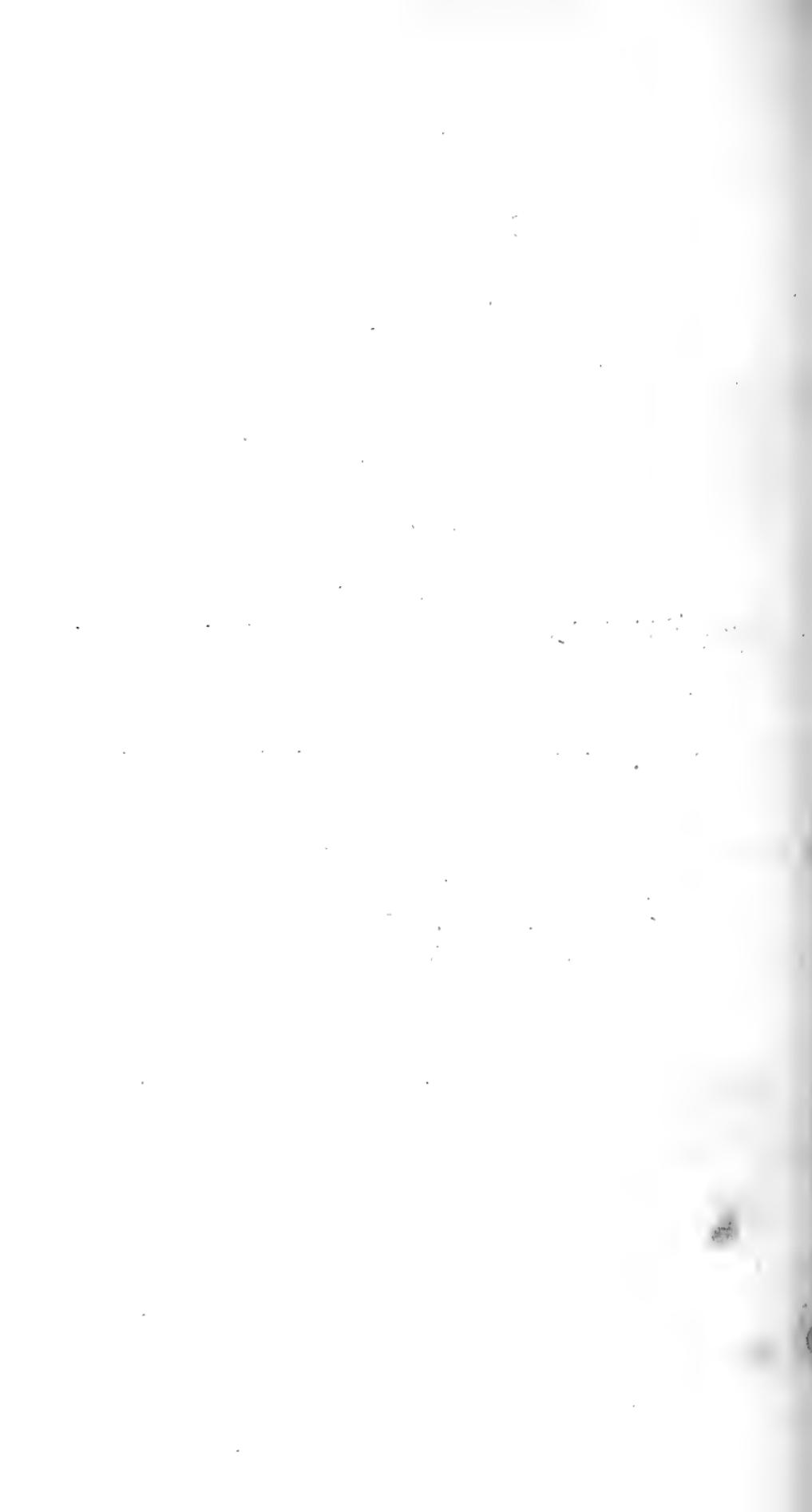
Carabus granulatus.—*Paykull Monogr.* 19. 9.

Degeer Inf. 4. 88. 2.

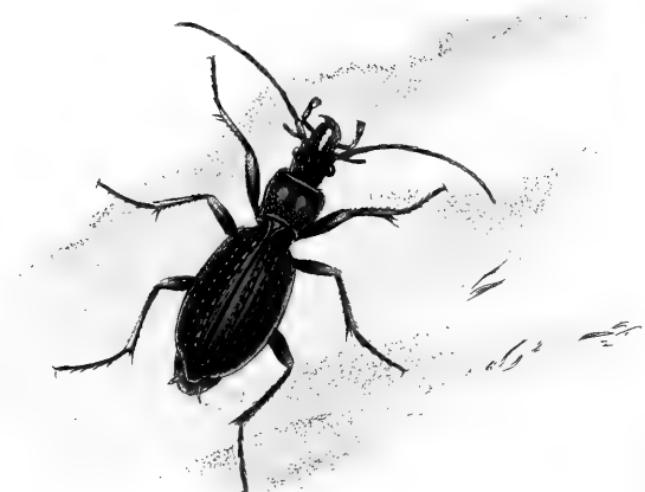
Sulz. Hist. Inf. tab. 7. fig. 2.

Schæff. Icon. tab. 18. fig. 6. ♂ tab. 15. 6. fig. 1.

Some authors say, this species is very common in the fields near London. It is often found in Battersea meadows; and we have not found it elsewhere.







P L A T E DXXVI.

CARABUS INTRICATUS.

INTRICATE-DOTTED CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated; thorax flat and margined: wing-cases margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous, violet-black: wing-cases with raised intricate striae and dots.

CARABUS INTRICATUS. Apterus violaceo-niger, elytris intricatis elevato-striatis punctulatisque. *Linn. Fn. Suec.* 780. &c.

CARABUS CYANEUS. Apterus niger violaceo nitens, elytris punctis intricatis rugosis *Paykull. Monogr.* 10. 2.—*Fabr. Ent. Syst. T. I. p. 126. n. 9.*—*Buprestis nigroviolaceus. Geoffr. Inf. I. 144. 4.*

It

It appears Fabricius was aware the carabus he described under the specific name of *cyaneus*, must be in all respects the same as the Linnæan *Carabus intricatus*, since he inserts the reference to that species in *Fauna Suecica*, among his synonyms: Paykull called it *cyaneus*, and this name Fabricius was induced to retain, though certainly less applicable than that it had previously obtained from Linnæus.—Fabricius describes it as a native of woods in Europe. Panzer includes it among the insects of Germany: in England it is very rare, and indeed appears not to have been discovered in the latter country till very lately.

The figure represents this curious insect in its natural size.

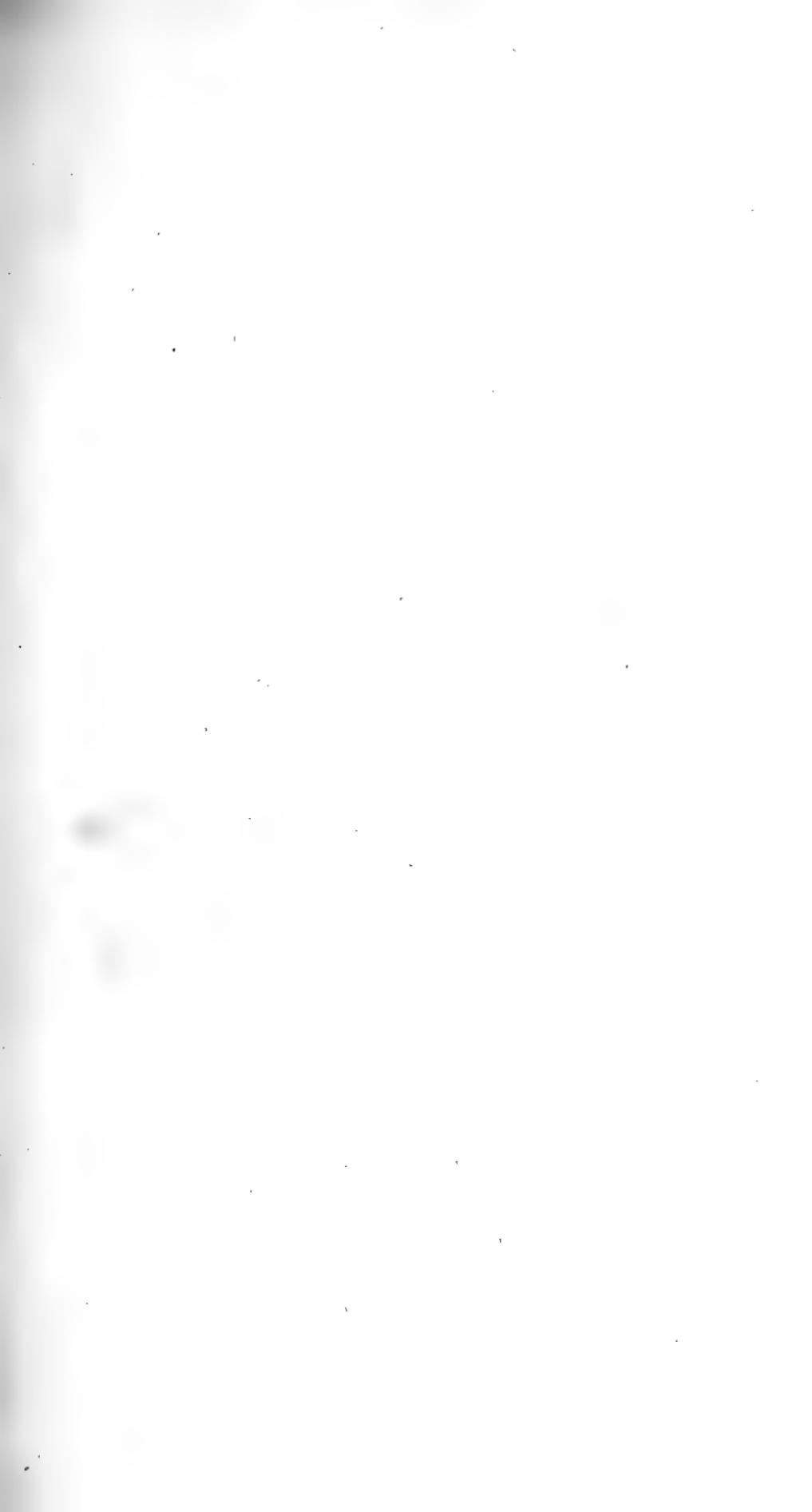




PLATE DVI.

CARABUS GLABRATUS.

SMOOTH CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

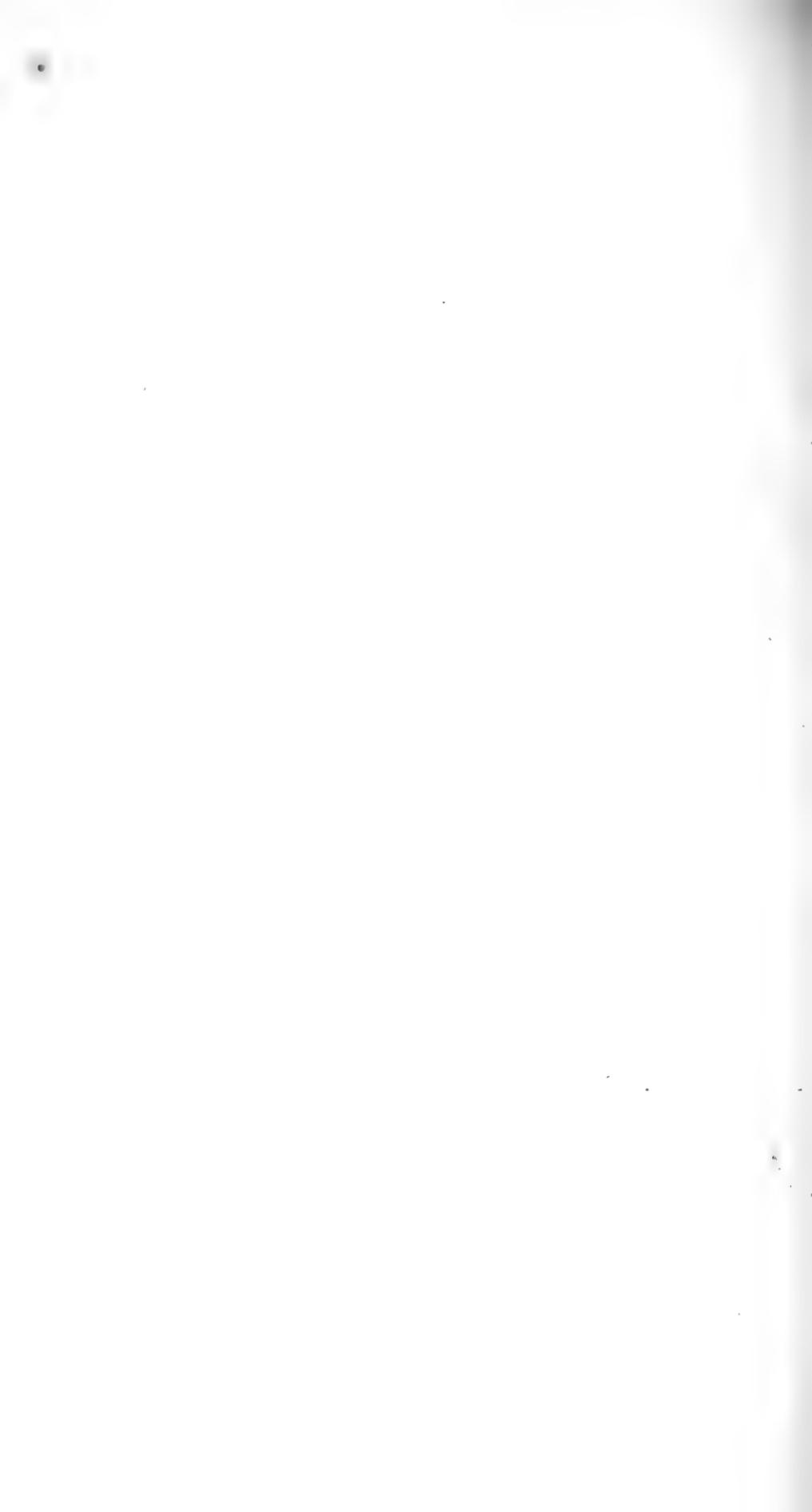
Antennæ filiform: feelers generally fix, the last joint obtuse and truncated; thorax flat and margined: wing-cafes margined.

SPECIFIC CHARACTER.

Apterous, black: wing-cafes very smooth, and uniformly black.

CARABUS GLABRATUS. Apterus, ater elytris lavissimis unicoloribus.
Fabr. Ent. Syst. T. 2. 125. 4.—*Carabus glabrus Panz.*

A rare species described by Fabricius as a native of Germany. It was first discovered in this country by Mr. W. G. Hooker of Norwich, who found it in great plenty on a mountain in Yorkshire; and since that period it has been met with in the rocks near Killarney in Ireland,



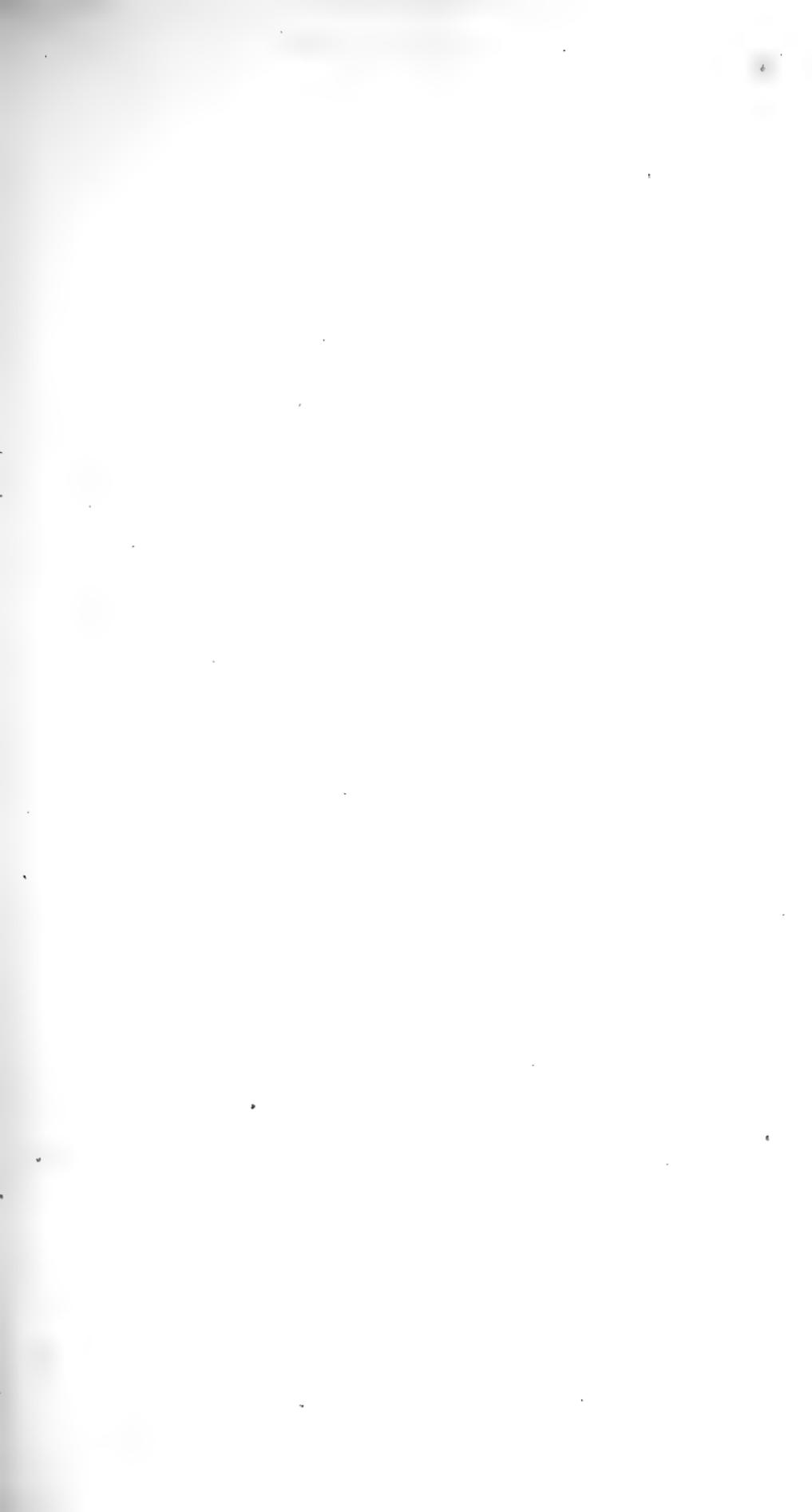




PLATE CCCXIII.

CARABUS NITENS.

SHINING CARABUS.

GENERIC CHARACTER.

Antennæ setaceous. Thorax heart-shaped truncated at the apex.
Elytra margined.

SPECIFIC CHARACTER.

AND

SYNONYMS.

No wings. Elytra rugged, with several longitudinal ridges, green margin reddish gold. Legs black.

CARABUS NITENS: apterus elytris porcatus scabris viridibus: margine aureo, pedibus nigris. *Linn. Syst. Nat.* 2. 669. 6.—*Fn. Sv.* 185.

Carabus nitens. *Eab. Ent. Syst. T. I.* p. 131. *fp.* 30

Carabus nitens. *Paykull. Monogr.* 24. 12.

Carabus aureus. *Degeer. Inf.* 4. 94. 9.

Schæff. Icon. tab. 51. *fig.* 1.

Sulz. Hjft. Inf. tab. 7. *fig.* 3.

The Carabus nitens is a very rare and recently discovered species in Great Britain. It is less uncommon in other parts of Europe, and especially in Germany, from whence the English collectors are usually furnished with specimens for their cabinets.

The smallest figure denotes the natural size.

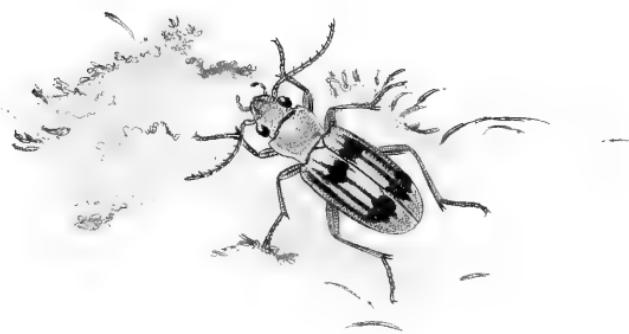


PLATE CCCCLXXXVIII.

CARABUS COMPLANATUS.

SAND CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated: thorax flat and margined: wing-cases marginate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Pale: two black-waved lines on the wing-cases.

CARABUS COMPLANATUS: pallidus, elytris fasciis duabus undulatis nigris. *Linn. Syst. Nat. 2. 671. 17.*

CARABUS ARENARIUS: pallidus elytris maculis duabus dorsalibus atris. *Fabr. Spec. Inf. 1. 305. 34.—Syst. Ent. 241. 26.—Mant. Inf. 1. p. 199. n. 46.*

The very elegant and interesting species of Carabus, at present before us, appears to be the original *C. Complanatus* of Linnæus: this we learn from the authentic specimen of that insect described by Linnæus himself, and which, constituting a part of the Linnæan cabinet, is now in the possession of Dr. Smith.

The

The same insect is, beyond dispute, the genuine *Carabus arenarius* of Fabricius, as may be clearly ascertained from the original example of that species described by Fabricius in the Banksian cabinet. Fabricius was doubtless not aware that it had been previously described, and therefore, from its habits of life, very appositely assigned it the specific name of *arenarius*: the Linnæan name, however, deserves the preference in point of priority, and, being perfectly admissible, should in candour be retained.

Linnæus, perhaps on authority not sufficiently explicit, speaks of his species *Complanatus* as an inhabitant of the island of St. Domingo. It is possible, his information in this respect might be correct, but we are rather inclined to think it doubtful. Its existence, as a British species, is determined in the most conclusive manner.

It will not be improper to observe, that the first example of this species, discovered in Britain, was taken, some years ago, by Sir Joseph Banks on the sandy shores of Wales, a circumstance to which Fabricius adverts, though slightly. From the time of its discovery, we have reason to believe it was not again observed till within a very recent period, when, on further search about the same shores where it was first observed, it was again found, and in considerable plenty. During the summer of the year 1809, it was taken in abundance under the drift-wood on the shores near Cromlyn Burrows, in the vicinity of Swansea, by Mr. W. Leach, F. L. S.; and prior to that period, Mr. L. W. Dillwyn, F. L. S. met with it on the sands below the town of Newton, in Glamorganshire.

In a living state, this curious insect appears uncommonly pellucid, and this appearance is retained in a certain degree even in the examples dried, and prepared for the cabinet: the general colour is pale testaceous, or yellowish, with the extreme tips of the jaws and eyes brown. The two black or deep brown spots on the back constitute distinct denticulated bands; and two or more of the longitudinal striæ, which intersect the pale transverse band between those spots, are

likewise



likewise black. The whole of the lower surface, with the legs and antennæ, are pale yellowish testaceous.

In conclusion we ought to mention, that this insect varies materially in the form, and also in the intensity of the black or dusky marks on the wing-cases,





PLATE CCCCLXXVII.

FIG. I.

CARABUS SYCOPHANTA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated: thorax flat and margined: wing-cases marginate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Winged: shining violet: wing-cases green-gold and striated.

CARABUS SYCOPHANTA: alatus violaceo-nitens: elytris striatis aureis. *Fabr. Sp. Inf.* 1. *p.* 303. *n.* 25.—*Mant. Inf.* 1. *p.* 197. *n.* 34.

CARABUS SYCOPHANTA: aureo-nitens, thorace cœruleo, elytris aureo-viridibus striatis, thorace subatro. *Linn. Fn. Suec.* 790.—*Gmel. Linn. Syst. Nat.* 1966. *n.* 12.—*Geoffr. Inf.* *p.* 1. *p.* 144. *n.* 5.—*Reaum. Inf.* 2. *t.* 37. *f.* 18.—*Sulz. Hist. Inf.* *t.* 7. *f.* 1.—*Bergstr. Nomencl.* 1. *t.* 12. *f.* 1. 2.



One of the largest and most splendid of the European Carabi, and which has not, till very lately, been discovered in England. It is mentioned, in the first instance, by Dr. Turton, as a British species,

and has, since that time, been met with by entomological collectors, both in Norfolk and Ireland. Mr. Hooker, F. L. S. possesses an example taken in England.

FIG II. II.

CARABUS CRUX MAJOR.

LARGER CRUCIATE CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax and head black and downy: wing-cases ferruginous, with a black cross.

CARABUS CRUX-MAJOR: thorace capitque nigro-villoso, coleoptris ferrugineis: cruce nigra. *Linn. Syst. Nat.* 673. 39.—*Faun. Suec.* 808.—*Fabr. Ent. Syst.* 1. a. 160. 158.—*Gmel.* 1978. 39.—*Marsh. Ent. Syst. T.* 1. p. 471.

CARABUS BIPUSTULATUS. *Fabr. Syst. Ent.* 207. 59.—*Sp. Inf. 1.* 312. 74.

Le Chevalier noir. *Geoffr.* 1. 150. 17.

Buprestis cruciata. *Panz. Voet.* 2. 70. 7. t. 34. f. 7.

An insect of elegant formation, very beautiful in colour, and of the greater interest to the English naturalist, as being rare. The black cruciate mark on the red wing-cases constitute a character of much singularity.



singularity. The species is of a moderate size, or rather small, and appears to peculiar advantage when magnified.

The smaller figure on the blade of grafts in the upper part of the plate exhibits the natural size; the magnified figure is enlarged to about the magnitude of *Carabus Sycophanta*, a size which admits of its being depicted with the greater fidelity.



PLATE DXVI.

CARABUS BIPUSTULATUS.

BIPUSTULATED CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated; thorax flat and margined: wing-cases margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Winged: thorax orbicular, and with the anterior part of the wing-cases rufous, posterior part black, with a common rufous spot.

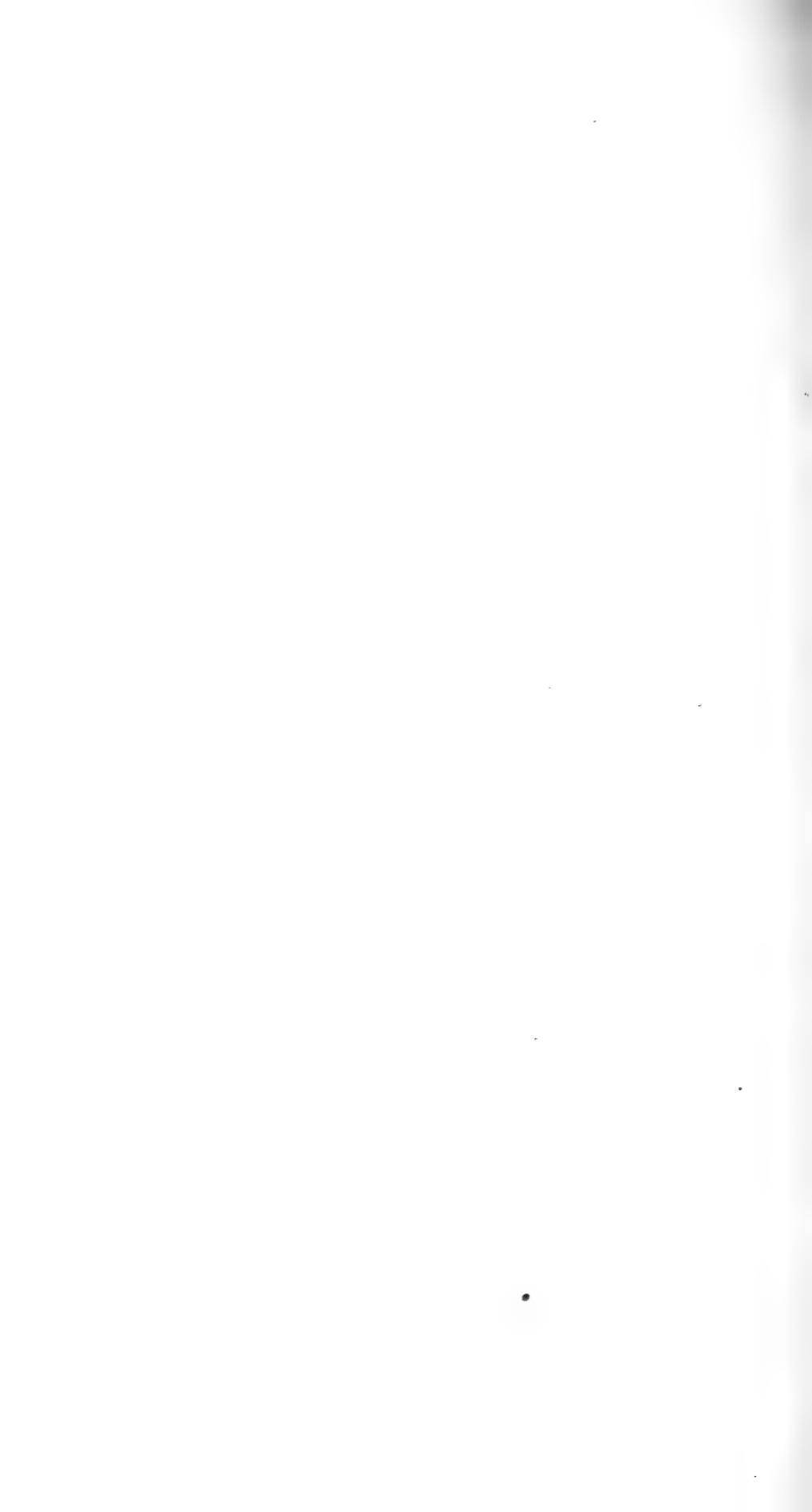
CARABUS BIPUSTULATUS: alatus, thorace orbiculato rufo, coleoptris apice nigris: macula rufa. *Fabr. Ent. Synt. T. I.* 161. *n.* 164.—*Paykull. Fn. Sv. I.* 138. 54.—*Marjh. Ent. Brit. T. I.* *p.* 464. 88.



A small, but elegant species, and which appears to peculiar advantage when magnified: the ground colour varies from rufous to paler,

paler, yellowish, and testaceous in different specimens; and some little variation is perceptible also in the form of the common spot at the posterior part of the wing-cases. The antennæ are fuscous at the base, the extremity pale or yellowish, and the legs of the latter colour.

The smallest figure represents this pretty little insect in its natural size.





2



2



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PLATE CCCLXVII.

FIG. I. I.

CARABUS PILICORNIS.

HAIRY-HORNED CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers six, the exterior joint obtuse and truncated: thorax obcordated, truncated behind, and margined: wing-cases margined: abdomen ovate.

SPECIFIC CHARACTER

AND

SYNONYMS

Thorax roundish: wing-cases striated, with impressed dots: antennæ hairy.

CARABUS PILICORNIS: thorace rotundato elytris striatis punctisque impressis, antennis pilosis. *Fabr. sp. Inf.* 1. *p. 307.* *n. 48.*—*Mant.* 1. 200. 65.—*Ent. Syst.* 1. *p. 1. 152. 122.*

CARABUS PILICORNIS. *Marth. Ent. Brit. T.* 1. *p. 446. sp. 36.*
Panz. Faun. Germ. 11. *t. 10.*

CARABUS PILICORNIS. *Donov. Tour South Wales, V.* 1. *p. 380.*



This insect appears to be rare in England. The first specimen of it met with by ourselves was taken on the sandy shore of the Severn sea,

sea, near the village of Newton, Glamorganshire: another occurs in the cabinet of the late Mr. Green, now in our possession, but the habitat of the latter is unknown to us.

FIG. II. II.

CARABUS SEMIPUNCTATUS.

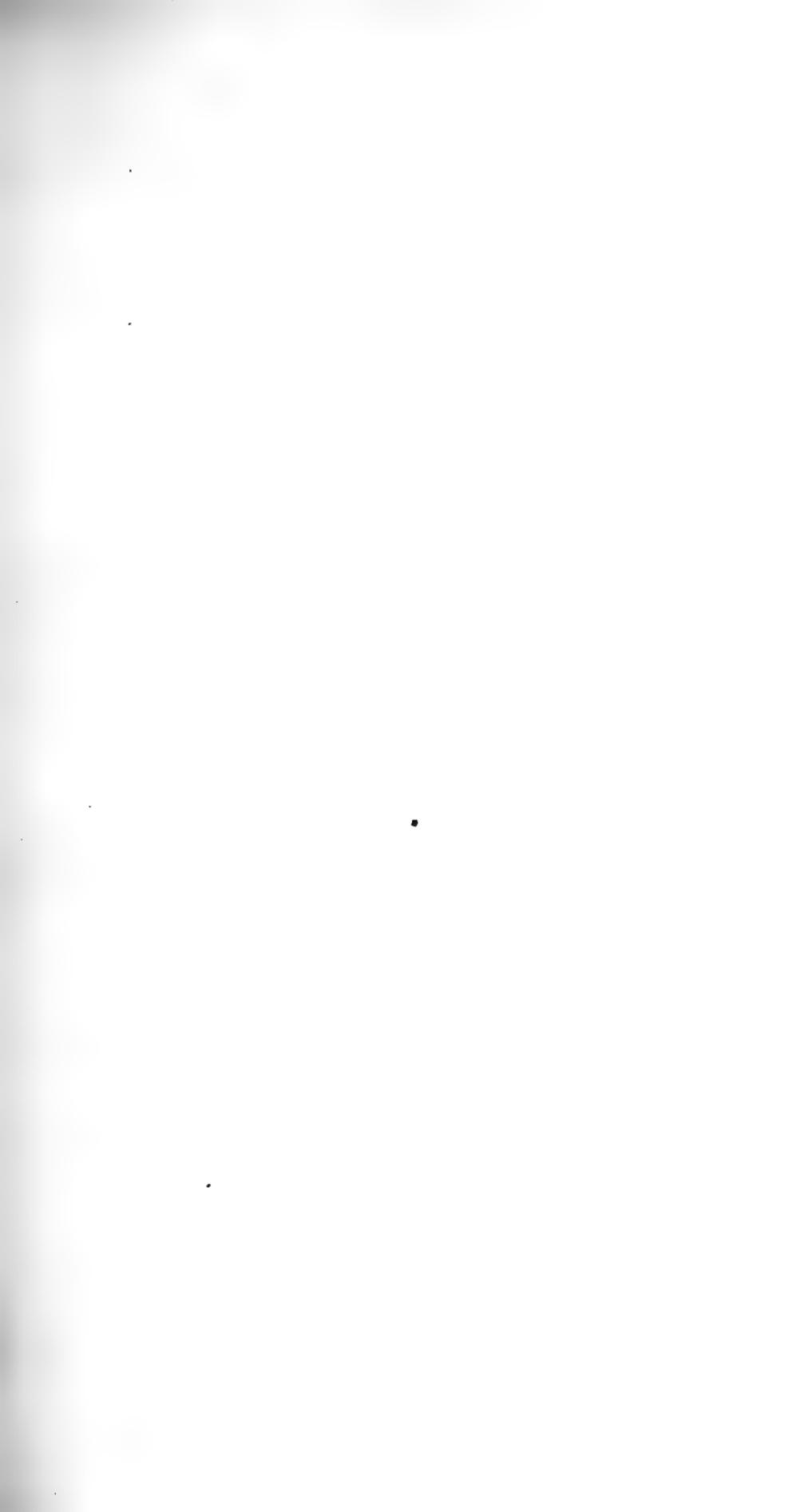
HALF-DOTTED CARABUS.

SPECIFIC CHARACTER.

CARABUS SEMIPUNCTATUS: thorax roundish: wing-cases fuscous, striated, with anterior hyaline spots, and dots of the same on the posterior half.

CARABUS SEMIPUNCTATUS. *Donov. Tour South Wales, V. I.*
p. 380.

We found a specimen of this curious species in the same place, and at the same time as the preceding. It is not described by any author.





P L A T E DXXX.

CARABUS LUNATUS,

LUNATED CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated; thorax flat and margined: wing-cases margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax orbicular and rufous: wing-cases yellow, with three black spots.

CARABUS LUNATUS. Thorace orbiculato rufo, elytris flavis: maculis tribus nigris. *Fabr. Ent. Syst. I.* 163. 172.—*Syst. Ent.* 247. 60.—*Panz. Ent. Germ.* 63. 98.—*Marsh. Ent. Brit. T. I.* p. 466. 1.

Carabus eques. *Schranck. Beytr.*

This very elegant little species is described by Fabricius as an inhabitant of Britain, on the authority of a specimen in the collection of

of Mr. Lee: the species occurs likewise in Germany, and Italy; Whether it is common in these latter mentioned countries is uncertain, we suspect not: in Britain it is rare.

The appearance of this insect when magnified is interesting; the natural size is denoted by the smallest figure,



PLATE CCCCLXXX.

CARABUS MELANOCEPHALUS.

BLACK HEADED CARABUS,

GENERIC CHARACTER.

Antennæ filiform : feelers generally fix, the last joint obtuse and truncated : thorax flat, and margined : wing-causes marginate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax and legs ferruginous : head and wing-causes black.

CARABUS MELANOCEPHALUS : thorace pedibusque ferrugineis, elytris capiteque atris. *Linn. Fn. Suec.* 795.—*Gmel. Linn. Syst. Nat.* 1973. n. 22.—*Fabr. Sp. Inf.* 1. p. 310. n. 64.—*Mant. Inf.* 1. p. 202. n. 89.—*Marsh. Ent. Brit.* 1. 438. 15.

Buprestis dorso rubro. *Panz. Voet.* 2. 73. 15.

Le Bupreste noir à corcelet rouge. *Geoff.* 1. 162. 42.



The small figure in the annexed plate denotes the natural size. Linnæus describes it as a sylvan species. We met with it in plenty in the woods of Erdig, Denbighshire.



255

256



PLATE DLIV.

CARABUS CUPREUS.

COPPERY CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers six, the exterior joint obtuse and truncated: thorax obcordated, truncated behind and margined: wing-cafes margined: abdomen ovate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Brassy: antennæ red at the base.

CARABUS CUPREUS: æneus, antennis basi rubris. *Linn. Fn. Suec.* 801.

Fab. Sp. Inf. 1. p. 308. n. 50.—*Mant. Inf.* 1. 201. 68.—*Ent. Syft.* 1. a. 153. 126.

Paykull Monogr. 71.

Fn. Fred. 21. 206.

Panz. Ent. Germ. 56. 60.

Illiger. Kugel. Kaf. Preus. 166. 31.

Marth. Ent. Brit. T. 1. p. 439. 18.

Le Bupreste perroquet. *Geoffr.* 1. 161. 40.

The

The head, thorax, and wing-cases are brassy brown, the under surface black with a violet gloss. This kind is distinct from *Carabus vulgaris*, with which it might be confounded, especially in having the first joint of the antennæ red, the whole of these organs being black in *Carabus vulgaris*.



PLATE DLXV.

CARABUS DIMIDIATUS.

KUGELANNIAN CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers fix, the exterior joint obtuse and truncated: thorax obcordated, truncated behind, and margined: wing-cases margined: abdomen ovate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Brassy green: head, thorax, and outer margin of the wing-cases generally purple: wing-cases somewhat convex striæ: legs black.

CARABUS DIMIDIATUS: æneo-virens, elytris striatis; interstitiis convexiusculis, pedibus nigris. *Maybh. Ent. Brit. T. 1. p. 445. Sp. 35.*

Oliv. Inf. 111. 35. 72. 94. t. 11. f. 121.

CARABUS KUGELANNII. *Panz. Faun. Germ. 39. t. 8.*
Illiger. Kugel. Kaf. Preuf. 166. 30.

A very scarce insect, and one of the most beautiful of the British Carabi. Its size is moderate, or rather small, somewhat exceeding the length of half an inch, the colours on the superior surface vivid, beneath black with a faint gloss of violet. The antennæ are black

with the base rufous, the legs entirely black. The head and thorax smooth, polished, and glossy, and the wing-cases striated; the interstices deep, and marked with impressed dots in a single series.

The colours in this species are not constant, the head and thorax in some instances being greenish and destitute of the fine purple tinge, so conspicuous in the specimen we have represented.



PLATE CCCCLXXXIV.

CARABUS CEPHALOTES.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated: thorax flat and margined; wing-cases marginate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black, thorax attenuated behind, the posterior margin rugose with dots: wing-cases smooth, and scarcely striated.

CARABUS CEPHALOTES: ater, thorace posticè attenuato, marginè postico punctato-rugoso, elytris lævibus obsole-tissimè striatis. *Marsh. Ent. Brit. T. 1. 472. n. 107.*

CARABUS CEPHALOTES: apterus, elytris atris lævibus, thorace exerto oblongo. *Linn. Fn. Suec. 788.—Gmel. Linn. Syst. Nat. T. 1. p. 4. 1964. 9.*

CARABUS CEPHALOTES: apterus ater lævissimus, thorace orbiculato convexo. *Fabr. Sp. Inf. 1. p. 304. n. 27.—Mant. Inf. 1. p. 198. n. 39.*

SCARITES CEPHALOTES. *Panz. Ent. Germ. 37. 5.*

Pseudocupis major. *Panz. Voet. 2. 64. 2. t. 33. f. 2.*

Found on sandy shores of the sea.



PLATE CCCCLXXXVI.

CARABUS CREPITANS.

MUSKETEER BEETLE.

GENERIC CHARACTER.

Antennæ filiform: feelers generally fix, the last joint obtuse, and truncated: thorax flat and margined; wing-cases marginate.

SPECIFIC CHARACTER

AND

SYNONYMS.

Head, thorax, and legs ferruginous; wing-cases blue-black.

CARABUS CREPITANS: capite thorace pedibusque ferrugineis, elytris nigris. *Linn. Syst. Nat.* 671. 18.—*Fn. Succ.* 792.—*Fabr. Syst. Ent.* 242. 35. *Sp.* 1. 307. 44.—*Mant.* 1. 200. 61.—*Panz. Ent. Germ.* 51. 35.—*Oliv.* 3. 35. 64. 80.—*Marsh. Ent. Brit.* 1. 468. 96.

Le Bupreste à tête, corcelet, et pattes rouges et étius bleus. *Geoffr.* 1. 151. 19.

An insect of small size that inhabits Europe, and is sometimes found in England, where it is far from common.

This species is remarkable only for the peculiar mode of defence which it instinctively adopts when closely pursued by carnivorous insects, or other enemies: on these occasions, it emits a distinct, and rather loud noise, either from the vent, or, as some suppose, from the friction of the wing-cases. This found it has the ability to repeat several times, and which, it may be imagined, is seldom exerted without success; the unexpected explosion for the moment alarming or repulsing its pursuer, and allowing, by that means, a convenient interval for the insect pursued to effect its escape.

An enlarged figure of this insect is given with its natural size.



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P L A T E LXXXVI.

CARABUS CYANOCEPHALUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ taper. Thorax and shells margined. A large appendix at the base of the posterior thighs. Five joints in each foot.

SPECIFIC CHARACTER.

Thorax and feet orange colour. Head and shells blue green.

Linn. Syst. Nat. 2. 671. 21.—Fn. Sv. 794.

CARABUS, &c. *Degeer Inf. 4. 100. 17. Tab. 3. Fig. 17.*

BUPRESTIS, &c. *Geoff. Inf. 1. 149. 40.*

CANTHARIS, &c. *Raj. Inf. 89. 1.*

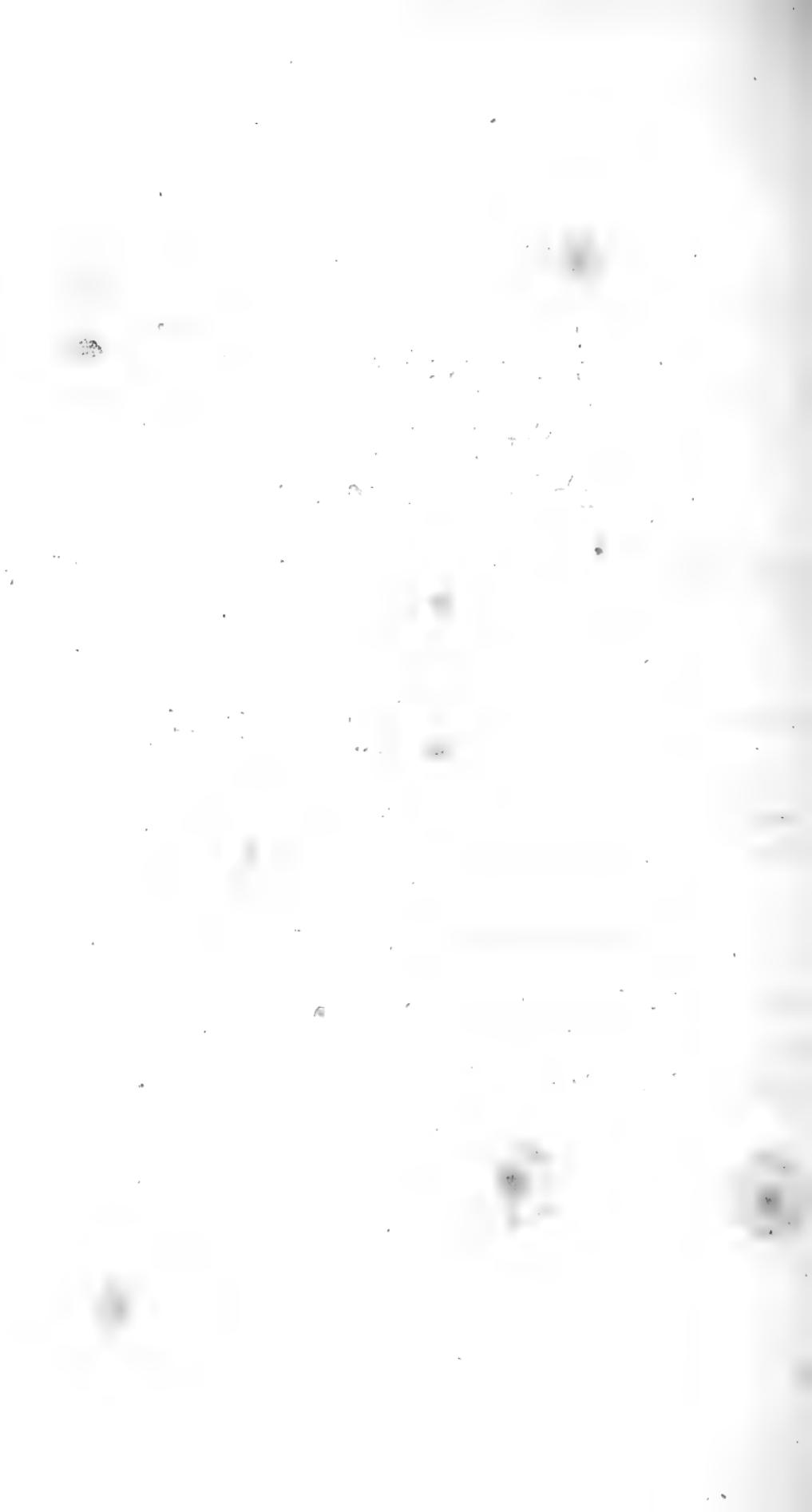
Schaeff. Icon. Tab. 10. Fig. 14.

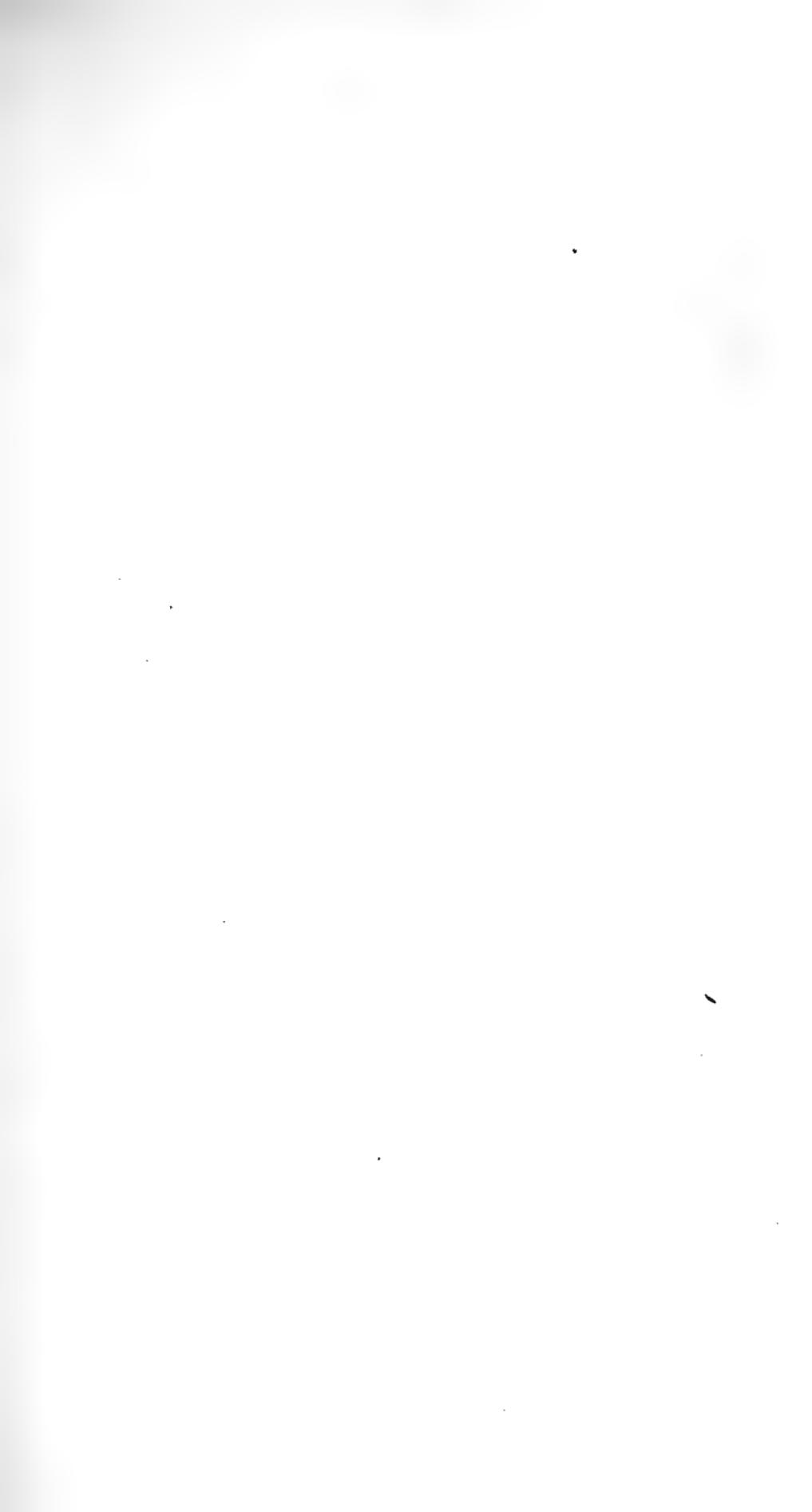
FIG. I. The Natural Size,

FIG. II. The Magnified Appearance of the Upper-side.

FIG. III. The Under-side, Natural Size.

This minute Insect is found in the months of *May* and *June*.





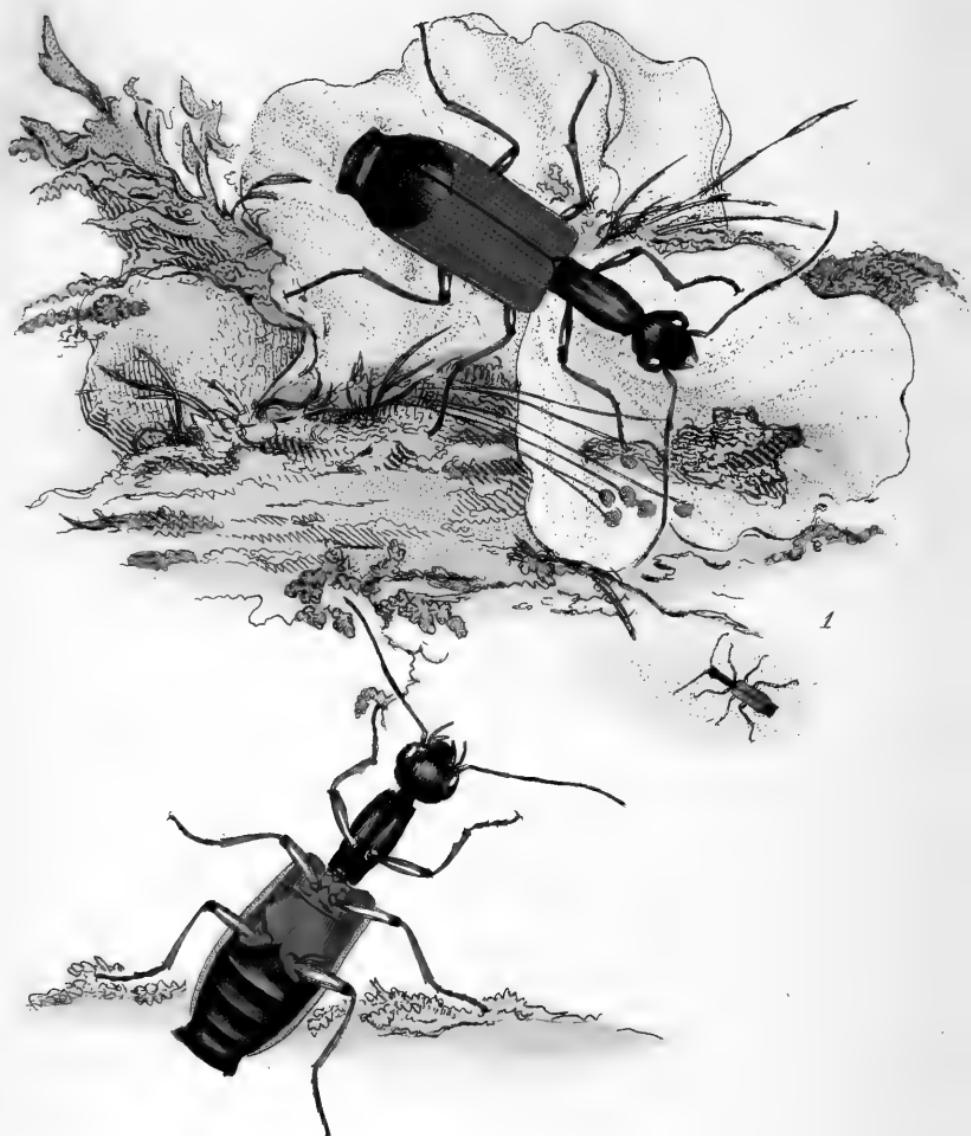


PLATE DXIII.

ATTELABUS MELANUROS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform, thicker towards the tip, and seated on the snout: head pointed behind and inclined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: wing-cases testaceous, the tip black.

ATTELABUS MELANUROS : *niger, elytris testaceis apicē nigris. Gmel.*
Linn. Syst. Nat. 1810. 6.

ODACANTHA MELANURA. *Paykull. Fn. Sv. I. 169.—Fabr. Syst.*
Eleut. I. 228.—Latr. Gen. Inf. I. 194.—Tab.
meth. 164.

Carabe retréce. *Oliv. Entom. 3, 35.*



This is a species rather exceeding, in point of size, such insects as may with propriety be termed diminutive; its length, as shewn by VOL. XV. D the

the smallest figure, exceeding one third of an inch, and including the antennæ considerably more: its form is peculiar, and the colours which are gay, in some degree remarkable for their brilliancy. Its singularity consists in the very curious form of the thorax, a kind of elongated cylinder, connecting the head with the body, as if the former were placed on a slender pedicle; the thorax being narrower by one half than the head, and not above one third the breadth of the wing-cases. Notwithstanding this disproportion of its parts, the appearance is not devoid of elegance, and to this the beauty of its colours contribute materially.

The head and thorax of this insect are green and blue, changeable into each other, and highly glossy: the contrast between the colours of these and the wing-cases is striking, the latter being fine orange, with the exception of a large common spot of the same shining blue and green, as on the head and thorax, or rather inclining more to azure, that is, disposed at the posterior extremity. It is no less worthy of remark, that the lower surface is in like manner varied with blueish shining green, and orange, the head, thorax and posterior part of the abdomen, being of the former colour, and the intervening space of the abdomen, orange. The antennæ are orange from the base to the middle, beyond which they are dusky: the legs also are of two colours, the thigh and first joint being orange, the remainder dusky; and besides this the thighs are black at the tips.

Gmelin describes this species as a native of Upsal. In Britain it is a very local species, but does not appear uncommon in the places it inhabits: it occurs abundantly in Cromlyn bog, in Glamorganshire, near Swansea, and also in a bog near Norwich.







PLATE DI.

FIG. I. I.

DYTISCUS HERMANNI.

HERMANN'S WATER-BEETLE.

COLEOPTERA.

GENERIC CHARACTER /

Antennæ setaceous: palpi fix, and filiform: posterior legs formed for swimming, fringed on the inner side, and nearly unarmed with claws.

SPECIFIC CHARACTER

AND

SYNONYMS.

Gibbous: head and thorax ferruginous: wing-caes truncated, at the base ferruginous.

DYTISCUS HERMANNI: gibbus, capite thorace elytrorumque basi ferrugineis, elytris truncatis. *Fabr. Syst. Ent.* 232. 14.—*Sp. Inf.* 1. *p.* 295. 19.—*Mant.* 1. 191. 24.—*Gmel. Linn. Syst. Nat.* 1949. 41.—*Marsh. Ent. Brit. T.* 1. *p.* 418. 13.

Dytiscus Hermanni does not appear to be a very common insect in this country: it is of an amphibious nature, and resides chiefly in the water, like the other species of its tribe.

The smallest figure represents the natural size.

FIG. II, II,

DYTISCUS MACULATUS,

SPOTTED WATER-BEETLE.

- *SPECIFIC CHARACTER*

AND

SYNONYMS.

DYTISCUS MACULATUS. Testaceous or pale: thorax dusky, with a pale band: wing-cases varied with black spots, and lines.

DYTISCUS MACULATUS. *Fab. Spec. Inf.* 1. 295. 23?



A rare species, shewn both in its natural size and magnified. The varieties of this insect are very numerous, and dissimilar,



PLATE CCCCXCVI.

DYTISCUS 12-PUSTULATUS.

12-SPOT WATER-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous : palpi six, and filiform : posterior legs formed for swimming : fringed on the inner side, and nearly unarmed with claws.

SPECIFIC CHARACTER

AND

SYNONYMS.

Testaceous : wing-cases black, with six testaceous spots on each.

DYTISCUS 12-PUSTULATUS : testaceus, elytris nigris : maculis sex testaceis. *Fabr. Ent. Syst.* 1. a. p. 197. 50.
Paykul. Faun. Suec. 1. 220. 29.
Oliv. 3. 40. 31. 35. t. 5. f. 46. a. b.
Marsh. Ent. Brit. 1. p. 422. 12.

Few of the Dytisci are distinguished for their beauty : their colours in general are either black, or blackish, variously glossed with blueish purple, or olive, or of a dull ferruginous ; and it is for this reason, more especially than any other, that the present species claims particular attention : it is certainly one of the prettiest insects of its tribe.

The size of this species is inconsiderable, which renders it necessary, in order to convey a correct idea of the subject, to represent it both in its natural size, and as it appears when magnified. The colour of the antennæ, legs, and thorax, are testaceous, the latter marked in the middle with a band of black ; the wing-cases are black, with six testaceous spots of an irregular form, disposed in two longitudinal series on each. Like the rest of its tribe, *Dytiscus 12-Pustulatus* is of the aquatic kind.



PLATE CCCIII.

DYTISCUS 2 PUNCTATUS.

TWO SPOT BOAT BEETLE.

GENERIC CHARACTER.

Antennæ either setaceous, or furnished at the end with a perfoliated capitulum. Hind feet formed for swimming, and hairy.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black brown. Thorax yellow with two black points: wing-cases variegated with yellow and brown.

DYTISCUS 2 PUNCTATUS: ater thorace flavo: punctis duobus nigris, elytris flavo fuscoque variis. *Fab. Ent. Syst.* T. 3. p. 1. p. 192. *fp.* 22.

Fabricius describes this as a German insect. It has not been figured by any author, and is uncommon in Great Britain. Lives in the water.

1



5



3



2



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PLATE LXVIII.

FIG. I. II.

DYTISCUS MINUTUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ taper, or clavato perfoliated. Feet villous and broad.

SPECIFIC CHARACTER.

Yellow-brown, Shells striated, and marked with short longitudinal stripes of black.

Fabri, Spec. Inf. 1. 297. 36.

Chrysomela Minuta. Linn. Syst. Nat.

Dytiscus Minutus. Linn. Syst. Nat. 2. 667. 23.—Fn. Sv. 778.

Dytiscus Ruficollis. Degeer. Inf. 4. 404. 18. Tab. 16. Fig. 9.

Linnaeus placed this Insect among the CHRYSOMELÆ, under the specific name *Minuta*; but Degeer consigned it to the DYTISCUS genus, and gave it the name *Ruficollis*: As a DYTISCUS it also appeared in the *Systema Naturæ*; and Fabricius, as well as other late Entomologists, have determined it to that genus, either calling it *Minutus*, or after Degeer, *Ruficollis*.

At Fig. I. is represented its appearance when magnified, and at Fig. II, the natural size.

Is not common; our specimens were taken on *Epping Forest* in June. It is an aquatic Insect, or one of that kind which passes through the several states in the water, and subsists on the smaller kinds of Insects, or on the fragments of macerated vegetables. Swims very swiftly.

FIG. III. IV.

DYTISCUS FERRUGINEUS.

COLEOPTERA.

DYTISCUS.

SPECIFIC CHARACTER.

Very convex. Above red-brown. Beneath paler.

Lin, Syst. Nat.

FIG. III. natural Size, FIG. IV. magnified.

This Insect is one of the same family, and was found at the same time and place as the preceding species. Is not very frequently met with.

FIG.

FIG. V.

DYTISCUS SULCATUS.

COLEOPTERA.

DYTISCUS.

SPECIFIC CHARACTER.

Shells brown, with four broad furrows, in which are grey-brown hairs. Head black, anterior part yellow, with transverse stripes. Thorax black, with yellow marks. Beneath black.

Syst. Ent. 231. 6.

Linn. Syst. Nat. 2. 666. 13.—*Fn. Sv.* 773.

Geoff. Inf. 1. 189. 5.

DYTISCUS fasciatus, &c. *Degeer Inf.* 4. 397. 4.

HYDROCANTHARIS. *Raj. Inf.* 94. 3. 10.

Frisch. Inf. 13. p. 13. *Tab.* 7.

Roes. Inf. 2. *Aquat.* 1. *Tab.* 3. *Fig.* 7.

Bradl. Nat. Tab. 26. *Fig.* 2. A.

Schaeff. Icon. Tab. 3. *Fig.* 3.

Bergstr. Nomencl. 1. *Tab.* 5. *Fig.* 3. 4. 5. *Tab.* 7. *Fig.* 6. 7.

It is suspected that the *DYTISCUS Sulcatus* is only the female of the *DYTISCUS Cinereus*, and by no means a distinct species, although Linnæus considered it as such.

It is common in the month of *May*, and thence is found throughout the Summer. It passes through the different changes, and exists in the adult state in the water; and like others of the same tribe, devours the smaller kinds of aquatic Insect, or tender vegetables. It darts with astonishing swiftness in search of its prey by the assistance of its hinder legs, which are well contrived for that purpose.

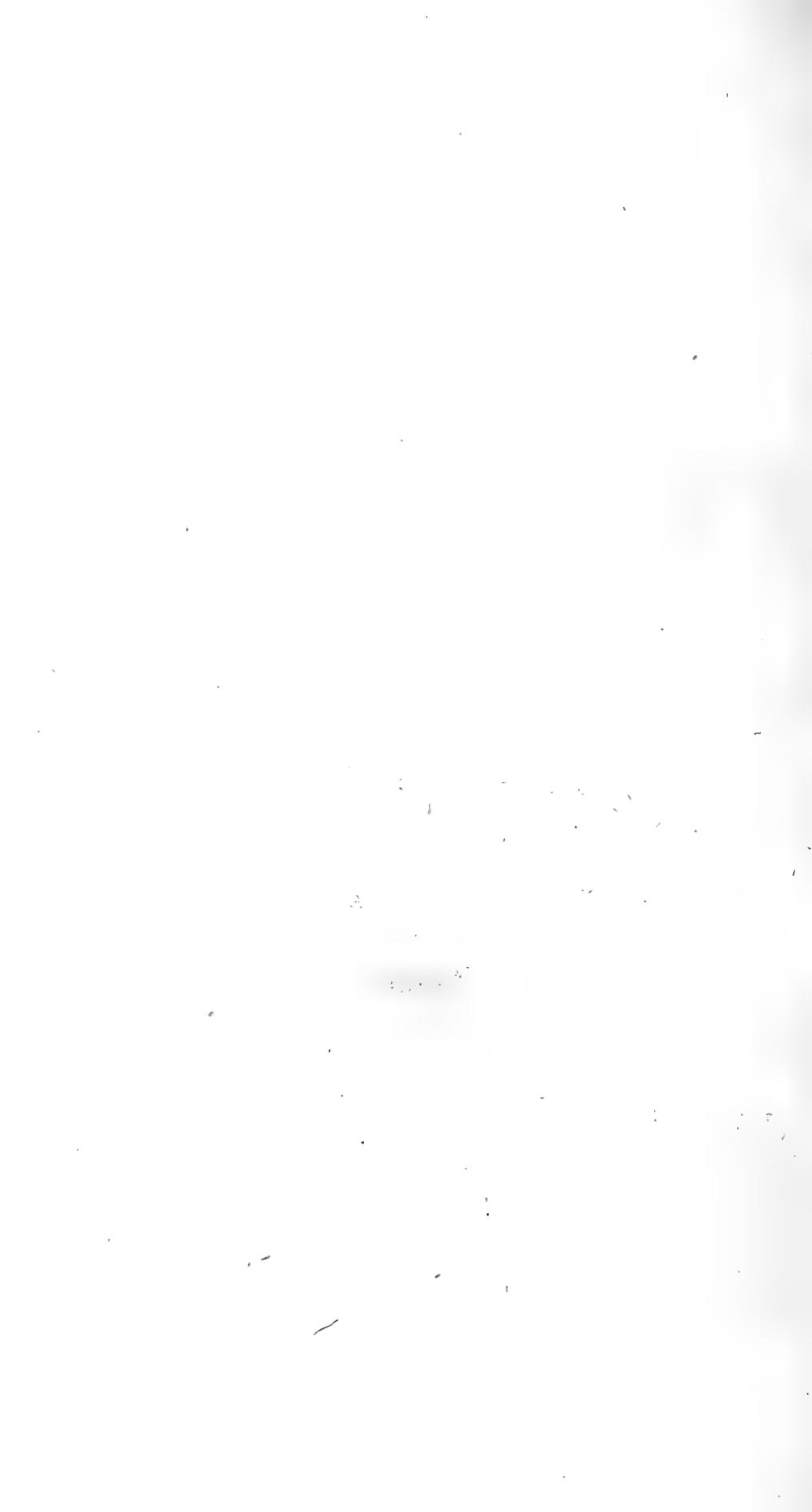




PLATE CLXI.

DYTISCUS MARGINALIS.

LARGE BOAT BEETLE.

COLEOPTERA.

Wings two, covered by two shells, divided by a longitudinal suture.

GENERIC CHARACTER.

Antennæ taper, or clavato-perfoliated. Feet villous and broad.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black; exterior margin of the thorax and shells yellow. Eyes large, round, black.

DYTISCUS MARGINALIS: niger thoracis marginibus omnibus elytrorumque exteriori flavis.

*Lin. Syst. Nat. 2. 665. 7.**Fn. Sv. 769.**Fab. Spec. Inf. 1. 291. 3.**Ent. Syst. Tom. 1. 187. 3.**Dytiscus nigro fuscus nitidus, thorace undique elytrorumque margine flavo. Degeer. Inf. 4. 391. 2. tab. 16. fig. 2.**Hydrocantharis nostras. Raj. Inf. 93. 1.**Mouff. Inf. 164.**Lift. Mut. tab. 5. fig. 42.**Sulz. Hist. Inf. tab. 6. fig. 42.**Roef. Inf. 2. Aquat. 1. tab. 1.**Schæff. Icon. tab. 8. fig. 7.**β. Dytiscus semistriatus fuscus, elytris fulcis dimidiatis decem.**Lin. Syst. Nat. 2. 665. 8.—Fn. Sv. 772.*

The transformation of any insect from one state to another is both curious and entertaining to an enlightened observer; yet there are a few species whose manners are so peculiar, and their changes so astonishing, that they seem to demand more than ordinary attention; and of this description we consider the subject of the annexed plate. If we speak of it as to its manners collectively, one peculiarity implies a contradiction of the other, for it is an aquatic, a terrestrial, and an aerial creature. Few insects that inhabit the water, in the perfect state ever quit it; and the generality of those whose larvæ live in that element could exist for a few minutes only in it, after they become winged insects; this is particularly noticed of the *Libellulæ*, *Phryganeæ*, *Ephemeræ*, *Tipulæ*, and an immense variety of other insects that are bred in the water; but it appears this insect in the larva state can leave the water without injury, and in the last state, though a winged creature, it lives for the most part in the water, and quits it only in the evenings; or when the pool dries up, it uses its wings in search of another.

In the larva state it is not less remarkable for its savage disposition, than its formidable appearance. The whole body is covered with a hard shell, or coat of mail, and the head is armed with two long, semi-circular, sharp-pointed forceps. It is very alert in the water, and when it takes its prey, which consists of smaller aquatic insects, it plunges these weapons into them, and through a minute aperture, at the extremity, it extracts all their juices. When the time arrives in which it is to become a pupa, it leaves the water and forms a cavity just below the surface of the earth of an oval form: how long it remains in this cavity in the pupa state is uncertain. The beetle comes forth in May.

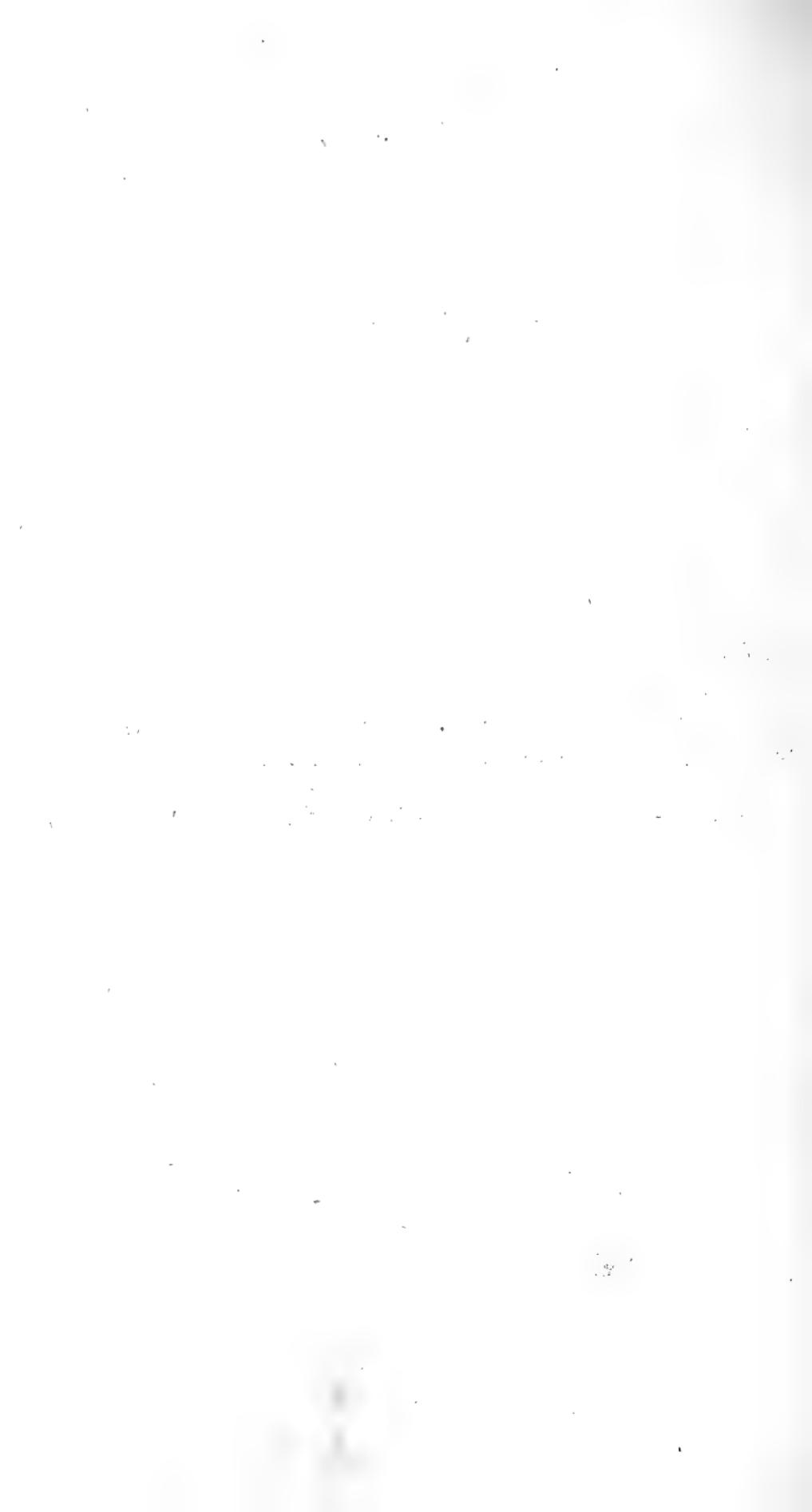
Much doubt has arose respecting the female of this species; Linnaeus, in the *Systema Naturæ*, described the supposed female as β *Dysticus Semistriatus*. Fabricius, in the *Species Insectorum*, adds a long list of fynonyms from different entomological writers, several of whom had figured or described it as a distinct species before the time of Linnaeus, and some subsequent authors have held the same opinion; but in the last work, *Entomologia Systema*, Fabricius considers it to be

the female, and includes only a few of his former references. Upon the first view of these opinions the point seem undetermined; and though we partly assent to the opinion of the last writer, we must endeavour to be entirely satisfied, before we give a figure of *Dytiscus Semistriatus*.

The upper side of this insect is generally described black; this is not the colour in living specimens: it is of a fine glossy black-green, and the marginal colour brighter than in those that have been dead some time. The greenish hue on the back seldom entirely disappears.

The fore feet of this beetle have an appendage of a very singular structure; it is nearly round, flat beneath, and has in the middle two remarkable circular cavities, with many others more minute: it is supposed, that through minute apertures in these cavities it can emit a kind of oily fluid; or that, by their assistance, it can collect air bubbles, to raise itself from the deep parts of the water to the surface, in an instant. The larva of the *Musca Chamæleon*, which lives in the water, collects the air in a bubble within the rays of its tail, and thereby raises itself to the surface in like manner.

Fig. 1. The eggs. Fig. 2. The larva. Fig. 3. The pupa.





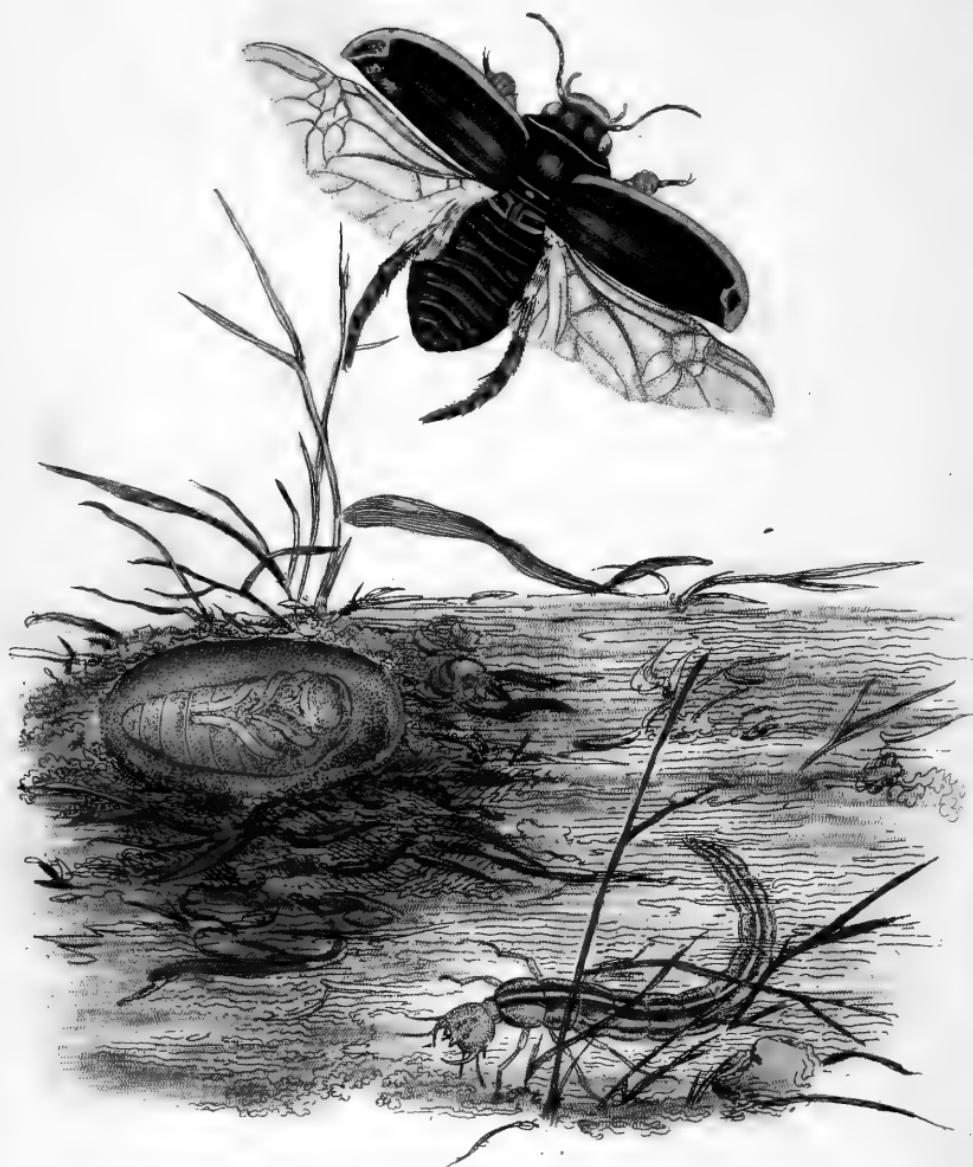


PLATE DXL.

DYSTISCUS PUNCTULATUS.

DOTTED BOAT-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous: feelers six, filiform: hind-legs formed for swimming, fringed on the inner side, and nearly unarmed with claws.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: wing-cases with three rows of dots: shield of the head, margin of the thorax, and wing-cases yellow.

DYTISCUS PUNCTULATUS. niger clypeo thoracis elytrorumque
margine albis, elytris striis tribus punctatis.
Geoffr. Inf. I. 185. *I.*—Le Ditiue brun à
bordure. *ib.*

DYTISCUS PUNCTULATUS. *Fabr. Ent. Syst. I. a.* 188. 4.

VOL. XV.

M

DYTISCUS

DYTISCUS LATERALI-MARGINATUS. *Degeer. T. 4. p. 396.*

n. 3.

DYTISCUS VIRENS. *Müll. zool. dan. prodr. p. 70. n. 664.*

DYTISCUS PUNCTATUS. *Oliv. S. 40. 22. 4. t. I. f. 6. b. and f.*
I e.

DYTISCUS PUNCTULATUS. *Marsh. Ent. Brit. T. I. p. 412.*

n. 2.



This in common with the other species of the *Dytiscus* genus is found in marshes, ponds, and other waters, particularly those of the stagnant kind, and which abound most with the refuse of animal substances, and aquatic plants.

The larva, like the rest of its tribe, is active, fierce, and vigorous; entirely aquatic and subsists on the other small inhabitants of the regions in which it lives, such as the larva of the *Ephemeræ*, the *Phryganæ* and many other creatures of the insect race that spend the earlier stage of their existence in the watery element; and also on the vermes which in such situations occur invariably, and in considerable numbers. In their turn the larvæ of the *Dytisci* become the food of fishes, and aquatic birds, but rarely fall a prey to the insect race, as their natural strength, and the powerful armament of their jaws, at least in the larger species, enables them to maintain a decided superiority over these puny enemies.

Previous to its passing into the pupa state, the larva of this species emerges from the bottom of the water, and forms a convenient receptacle for the purpose in some adjacent bank, or spot of ground near the water's edge; this accomplished, it changes to the pupa, and after a while appears in the winged state.—Having assumed this form

form it becomes in all respects an amphibious creature, residing alternately in the water, or on the land. When in the water, however, which appears to be its most congenial element, it is frequently observed to rise upon the surface to take in air, and on the contrary when on land, or in flight, it does not willingly remain a long time before it again plunges into the aquatic element.

Dytiscus punctulatus is found in the ditches of Battersea meadows.



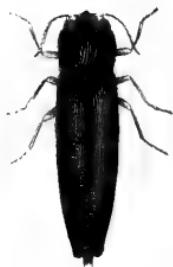


PLATE CLXXIV.

BUPRESTIS VIRIDIS.

GREEN BUPRESTIS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous, and as long as the thorax. Head drawn within the Thorax.

SPECIFIC CHARACTER

AND

SYNONYMS.

Linear, shining blue and green, a few exceedingly minute spots sprinkled over some parts.

BUPRESTIS VIRIDIS; elytris integerrimis linearibus punctatus, corpore viridi elongato. *Fab. Spec. Inf.* 1. 281. 54.—
Syst. Ent. 223, 38.—*Linn. Syst. Nat.* 2. 663. 25.—
Fn. Sv. 762.

Buprestis viridis nitida, corpore elongato, elytris linearibus scabris integerrimis. *Degeer. Inf.* 4. 1. 33. 6. *tab.* 5. *fig.* 1.

Cucuius viridi cupreus oblongus, *Geoff. Inf.* 1. 127. 5.

Mordella ferraticornis. *Scop. Carn.* 190.

The Larva of this Insect feeds on the Birch-tree (*Betula Alba*). It is rarely met with in England; and if we may form any opinion from the silence of Naturalists, it is not common in any part of Europe.

F. I. Natural size.

L

PLATE







I



PLATE CCLVI.

BUPRESTIS MINUTA.

MINUTE BUPRESTIS, or COW BURNER.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous, length of the thorax: head half retracted within the thorax.

SPECIFIC CHARACTER

AND

SYNONYMS.

Ovate: wing-cases entire, bronzed, rugged, and transversely undulated with streaks of fine whitish hairs: thorax somewhat trilobate, and smooth.

BUPRESTIS MINUTA: elytris integris transverse rugosis, thorace subtrilobo lœvi, corpore ovato nigro. *Linn. Syst. Nat. 2. 663. 24.—Fn. Sv. 760.—Fab. Ent. Syst. 1. p. 2. 212. fp. 111.*

Cucujus fuscocupreus triangularis: fasciis undulatis villosa albidis. *Geoff. Inf. 1. 128. 6.*

The natural size is represented at figure 1.

This pretty species is found on the nut tree in May and June.



PLATE CCLXXXII.

BUPRESTIS PYGMEA.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous and the length of the thorax: head half retracted, or drawn within the thorax.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wing-cases entire blue: head and thorax brown, bronzed, and glossy.

BUPRESTIS PYGMEA: elytris integris cyaneis, capite thoraceque ænæis nitidis. *Fab. Ent. Syft.* 1. p. 2. p. 211. *Sp.* 110.

The discovery of this minute but rare species of Buprestis in this country is due to Alexander M'Leay, Esq.—It was found in a puddle, on the road side, near Coombe Wood, in the month of May last. The specimen is represented in the annexed plate; the smallest figure denotes the natural size.



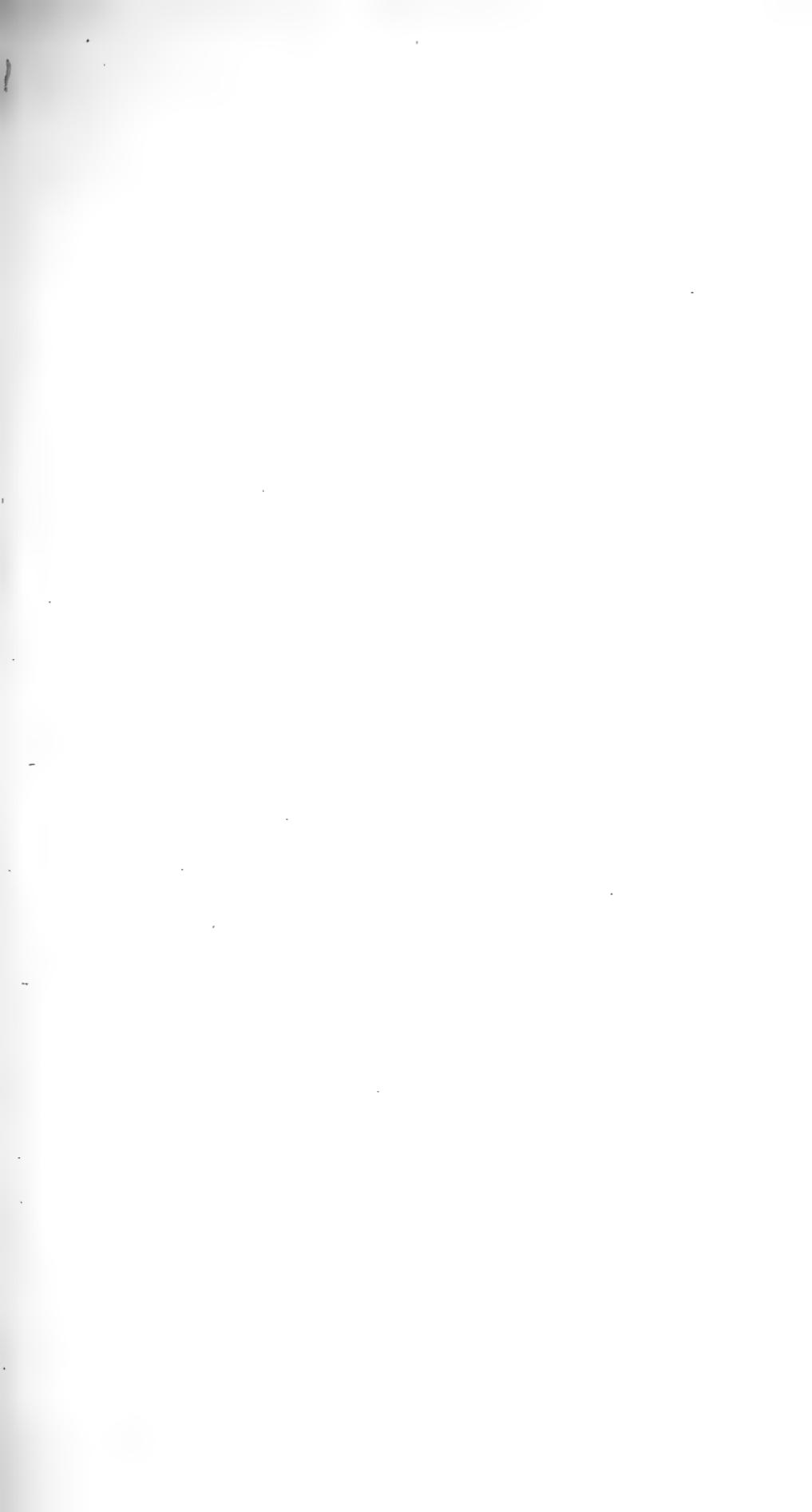




PLATE CXXVII.

BUPRESTIS SALICIS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ taper, the length of the thorax: Head half concealed.

SPECIFIC CHARACTER.

Head and thorax fine blue. Shells upper half changeable green; lower part reddish purple.

BUPRESTIS SALICIS: elytris integerrimis viridis nitens, coleopteris aureis basi viridibus. *Fab. Gen. Inf. Mant.* p. 237.

Buprestis elegantula, Schrank. *Inf. Austr.* n. 365. p. 195.

Cucuius rubinus. Fourcroy. *Ent. Paris.* T. I. n. 4. p. 33.

Le Richard rubis. Geoff. *Inf. Paris F. I.* p. 126.

Geputzter Stinkkäfer. Weiden-Prachtkäfer. *Panz. Faun. Inf. Germ.*

This uncommonly beautiful Insect has been described as a native of Algiers in Africa, a figure of it is given in the work of Olivier, and another in Panzer's History of the Insects of Germany; we find it also described by Fourcroy and Geoffroy as a native of France, but cannot learn that it has been considered as an English species before this time.

We were not so fortunate as to take this Insect, it was communicated by a person on whose veracity we can rely: he found it on the bark of an old willow tree, between Dulwich Common and

Norwood, on, or about the 8th of June, 1794. As we know the precise spot where it was taken, we shall attend to it particularly next season, and the earliest intimation of success, shall be given through the medium of a future number.

When we consider how much the study of coleopterous Insects has been neglected in this country, even by those who have pursued with unremitting perseverance almost every other branch of Entomology, we cannot be much astonished that such a minute Insect as the *Buprestis Salicis* should have escaped notice ; add to this, we can scarcely doubt that it is very rare in this country, and probably lives concealed in the crevices of the tree, or under the rotten part of the bark. The number of new Insects that have been discovered in this country within a few years *, renders it not improbable, that future English Entomologists, by extending their enquiries, may find many more of the species that are now met with in the northern, and perhaps even southern parts of Europe.

Fig. 1, natural size.

Fig. 2, its magnified appearance;

* Among the rarities met with last summer, we may particularly mention the *Phaëna Delphinii*, *Pease Blossom Moth*. This very beautiful Insect was taken by a Gentleman at Chelsea ; it was never ascertained before to be an English Insect.



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PLATE CCCLVI.

ELATER FERRUGINEUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: palpi four: an elastic spine at the extremity of the thorax on the under side, by means of which it springs up when placed on the back.

SPECIFIC CHARACTER.

Thorax and wing-cases ferruginous: body and posterior margin of the thorax black.

ELATER FERRUGINEUS: thorace elytrisque ferrugineis, corpore thoraceque margine posteriore nigris. *Linn.* *a*
Gmel. *T. 1. p. 4. p. 1906. sp. 20.*

Scarce. From the collection of Mr. Francillon.

FIG. II.

ELATER PECTINICORNIS.

SPECIFIC CHARACTER.

Above greenish with a dull brassy gloss: antennæ of the male large and pectinated.

ELATER PECTINICORNIS: thorace elytrisque æneis, antennis maris pectinatis. *Linn. Gmel. T. 1. p. 4. p. 1909.*
fp. 32.

The elegant antennæ of this Insect is very characteristic. It is not an uncommon species.



PLATE DVIII.

FIG. I. I.

ELATER SANGUINEUS.

SANGUINEOUS ELATER, OR SKIPPER BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform, lodged in a groove under the head and thorax: under-side of the thorax terminating in an elastic spine, placed in a cavity of the abdomen, by which means when placed on the back it springs up, and recovers its natural position.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black: wing-cases sanguineous, and without spots.

ELATER SANGUINEUS: ater elytris striatis sanguineis immaculatis.
Linn. Syst. Nat. 2. 654. 21.—Fn. Sv. 731.—
Gmel. 1906. 21.

Elater nigris elytris rubris,—Le taupin à étuis rouges. *Geoff. Inf. I. 131. 2.*

Elater

PLATE DVIII.

Elater melanocephalus ruber *Panz. Voet.* ii. 117. 21. t. 44.f. 21.
ELATER SANGUINEUS. *Marsh. Ent. Brit. T. I.* p. 383. n. 20.

Very rare in Britain. The species is found in Sweden, Germany and France.

FIG. II II.

ELATER CUPREUS.

COPPERY ELATER, OR SKIPPER BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Coppery : wing-cases half yellow : antennæ of the male pectinated.

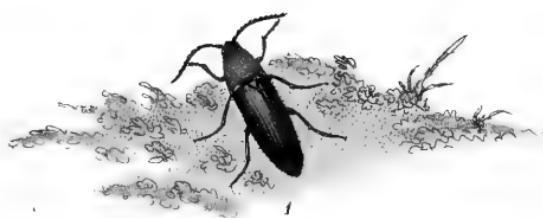
ELATER CUPREUS : cupreus, elytris dimidiato-flavis : antennis maris pectinatis. *Marsh. Ent. Syst. T. I.* p. 384. 23.

ELATER CUPREUS. *Fabr. Syst. Ent.* 15.—*Spec. Inf.* 1. 268. 20.
Ent. Syst. 1. b. 225. 37.

ELATER CASTANEUS. *Scop.* 286.

A very beautiful and rare species: its size equal to that of *Elater pectinicornis*: dull coppery or brassy rufous: antennæ black.

PLATE



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PLATE DXVIII.

ELATER RUFICOLLIS.

RUFOUS-NECKED ELATER, OR SPRINGER BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform and lodged in a groove under the head and thorax: sides of the thorax terminated in an elastic spine placed in a cavity of the abdomen, by means of which the insect, when on its back, recovers its natural position.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black and polished, anterior part of the thorax red

ELATER RUFICOLLIS: niger, thorace posterius rubro nitido. *Linn.*
Fn. Suec. 724.—*Fabr. Sp. Inf.* I. p. 270. n. 33
 —*Mant. inf.* I. p. 173. n. 37.—*Ent. Syst.* I. b. 227. 52.

ELATER RUFICOLLIS: thorace rubro nitido antice nigro, elytris corporeque nigris. *Marsh. Ent. Brit. T. I.* 376. n. 2.



A rare and very pretty species. Its habits are unknown. Linnæus describes it as a native of Sweden.



P L A T E DXXXV.

F I G. I.

ELATER CYANEUS.

CYANEOUS SKIPPER-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform, lodged in a groove beneath the head and thorax : under-side of the thorax terminating in an elastic spine, lodged in a cavity of the abdomen, by which means when placed on the back it springs up, and recovers its natural position.

SPECIFIC CHARACTER

AND

SYNONYMS.

Entirely purplish blue and dotted : wing-cases striated.

ELATER CYANEUS : totus purpureo-caeruleus punctulatus, elytris striatis. *Marsh. Ent. Brit. T. I.* 388. 32.

A rare insect, and which appears hitherto to have been described only as a British species. Some collectors have conceived it to be a sexual difference of the following kind.

FIG. II.

ELATER IMPRESSUS.

IMPRESSED SKIPPER-BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Blue-black, and glossy: wing-caes with an impressed dorsal line, and two dots: legs pitchy.

ELATER IMPRESSUS: atro-cæruleus niditus, thorace linea dorsali punctisque duobus impressis, pedibus piceis.
Marsh. Ent. Brit. T. I. 387. 29.

Rather larger than the preceding.







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PLATE XCVI.

FIG. I.

CHRYSOMELA POLYGONI

COLEOPTERA.

GENERIC CHARACTER.

Antennæ knotted, enlarging towards the ends. Corselet margined.

SPECIFIC CHARACTER.

Head, Shells, and underside blue green. Thorax and Thighs orange colour. Globules of the Antennæ of equal size.

C. Polygoni. Ouata cærulea, thorace femoribus anoque rufis.

Syst. Ent. 100. 32. — Linn. Syst. Nat. 2. 589. 24. —

Fn. Sv. 520.

Chrysomela, &c. Geoff. Inf. 1. 283. 4.

Chrysomela, &c. Degeer. Inf. 5. 322. 26.

Reaum. Inf. 3. Tab. 17. Fig. 14. 15.

Schæff. Icon. Tab. 51. Fig. 5.

Tab. 161. Fig. 4.

Tab. 173. Fig. 4.

This pretty, though common Insect, is generally found on those plants which grow on the banks of ditches in the months of May or June.

FIG.

FIG. II.

CANTHARIS ÆNEA.

GENERIC CHARACTER.

Antennæ taper. Thorax margined. Shells flexible. Sides of the Abdomen papillous, and folded. In each Foot five joints.

SPECIFIC CHARACTER.

Bright green. Shells red on the external sides; a small red spot on each side of the Corselet.

CANTHARIS *Ænea* thorace marginato, corpore viridi æneo elytris extrorsum undique rubris. *Linn. Syst. Nat.* 2. 648. 7.—
Fn. Sv. 708.

Cicindela viridi ænea, elytris extrorsum rubris.

Geoff. Inf. 1. 174. 7.

Theliphorus æneus, &c. *Degeer. Inf.* 4. 73. 6. *Tab.* 2. *Fig.* 16. 17.

Scarabæus, &c. *Raj. Inf.* 77. 12.

Schæff. monogr. 1754. *Tab.* 2. *Fig.* 10. 11.
Icon. Tab. 18. *Fig.* 12. 13.

Very plenty on flowers; often on thistles in May.



FIG. III.

STAPHYLINUS MAXILLOSUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ globular. In each Foot five joints. Shells curtailed. Wings covered. Tail defenceless, with two vesicles.

SPECIFIC CHARACTER.

Black. Antennæ of eleven globules. Jaws as long as the Head. Shells grey, cover one third of the Abdomen. Length one inch.

Sp. Maxillosus. Pubescens niger, fasciis cinereis. *Syst. Ent.* 265. 3.
Linn. Syst. Nat. 2. 683. 3.—*Fn. Sv.* 841.

Staphylinus, &c. *Geoff. Inf.* 1. 360. 1. *Tab.* 7. *Fig.* 1.

Staphylinus balteatus, &c. *Degeer. Inf.* 4. 18. 4. *Tab.* 1. *Fig.* 7. 8.

Scarabæus. *Lift. Logu.* 391.

Jonst. Inf. Tab. 17. *Fig.* 1. 2. 3.

Bocc. Mus. 2. *Tab.* 31. *Fig.* AA.

Schæff. Icon. Tab. 20. *Fig.* 1.

Staphylinus olens, &c. *Müll. Faun. Fridricksd.* 23. 228.
Zool. Dan. 97. 1090.

Found chiefly in sandy places; may be often observed flying against dry banks when the sun shines; makes a buzzing noise; feeds on decayed vegetables, but more especially on the flesh of dead animals. Met with in May, June, and July.

FIG.

FIG. IV.

ELATER SPUTATOR.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ taper, lodged in a groove under the Head and Thorax. Under side of the Thorax terminates in a point lodged in a cavity of the Abdomen. Spring to a considerable height when laid on their backs.

SPECIFIC CHARACTER.

Thorax black. Shells brown. Body black.

Linn. Syst. Nat. ed. 12. 182. 15.

Faun. Suec. 583.

We have several species of this genus that so nearly resemble each other, as scarcely to be distinguished on the most accurate investigation from the *E. Sputator*. They are found in great abundance in summer.







P L A T E D X L V.

ELATER 4-PUSTULATUS.

FOUR-SPOT SPRINGER BEETLE

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform, lodged in a groove under the head and thorax: under side of the thorax terminating in an elastic spine, placed in a cavity of the abdomen; by which means the body, when placed on the back, springs up and recovers its natural posture.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black wing-cases striated, with two testaceous dots.

ELATER 4-PUSTULATUS: niger elytris striatis: punctis duobus testaceis. *Fabr. Ent. Syft. T. 1. p. 2. p. 235. sp. 89.—Paykull, &c.*

A diminutive insect, of very uncommon rarity, originally described by Fabricius from a specimen in the cabinet of Hybner: this was found in Saxony: it has been since described as a native of Sweden, and was lately discovered on the banks of the Tavy river.

The smallest figure denotes the natural size; the prevailing colour is black, the spots on the wing-cases with the legs testaceous.







PLATE DXLIV.

LAMPYRIS FESTIVA.

FESTIVE LAMPYRIS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers four; wing-cases flexile: thorax flat, semi-orbicular, surrounding and concealing the head; segments of the abdomen terminating in folded papillæ: female usually apterous.

SPECIFIC CHARACTER.

LAMPYRIS FESTIVA. Sublinear, tawny orange: wing-cases with four raised lines, and posterior end black: disk of the thorax black.

An insect of more striking aspect, notwithstanding the inferiority of its size, can scarcely present itself. It appears to be extremely rare; indeed, we have not seen it in any other cabinet than that of the late Mr. Drury, now in our own possession; nor does it seem to be described by any author; we presume, therefore, it may be new to Entomologists in general.

In the Linnæan System this insect must fall under some one of the several families into which modern Naturalists divide the Lampyrides of that author. Nevertheless, it should not be concealed that its characters are in certain respects remote from that of the true Lampyrides, and might, without any degree of impropriety, remove it entirely from that genus. The Entomologist need scarcely to be apprized of the families to which we allude; the genus *Lampyris*, as established by Linnæus, it must be known, are divided into many sections, without which it would be impossible to retain the whole of the Lampyrides under one generic appellation. Even Gmelin, in editing the last edition of *Systema Naturæ*, seems sensible of this, as he forms no less than five distinct families for their reception. The whole of these, according to Fabricius, from whom they are adopted, are generically distinct, and are so constituted by him under the respective names *Lampyris*, *Omalyffus*, *Coffyphus*, *Pyrochroa*, and *Lycus*:—this is the order in which they stand in the latest works of that writer: some further alterations have been again made by writers subsequent to Fabricius, but generally, it may be observed, the example of Fabricius is almost implicitly followed in the division of the Linnæan genus of Lampyrides, throughout the continent of Europe.

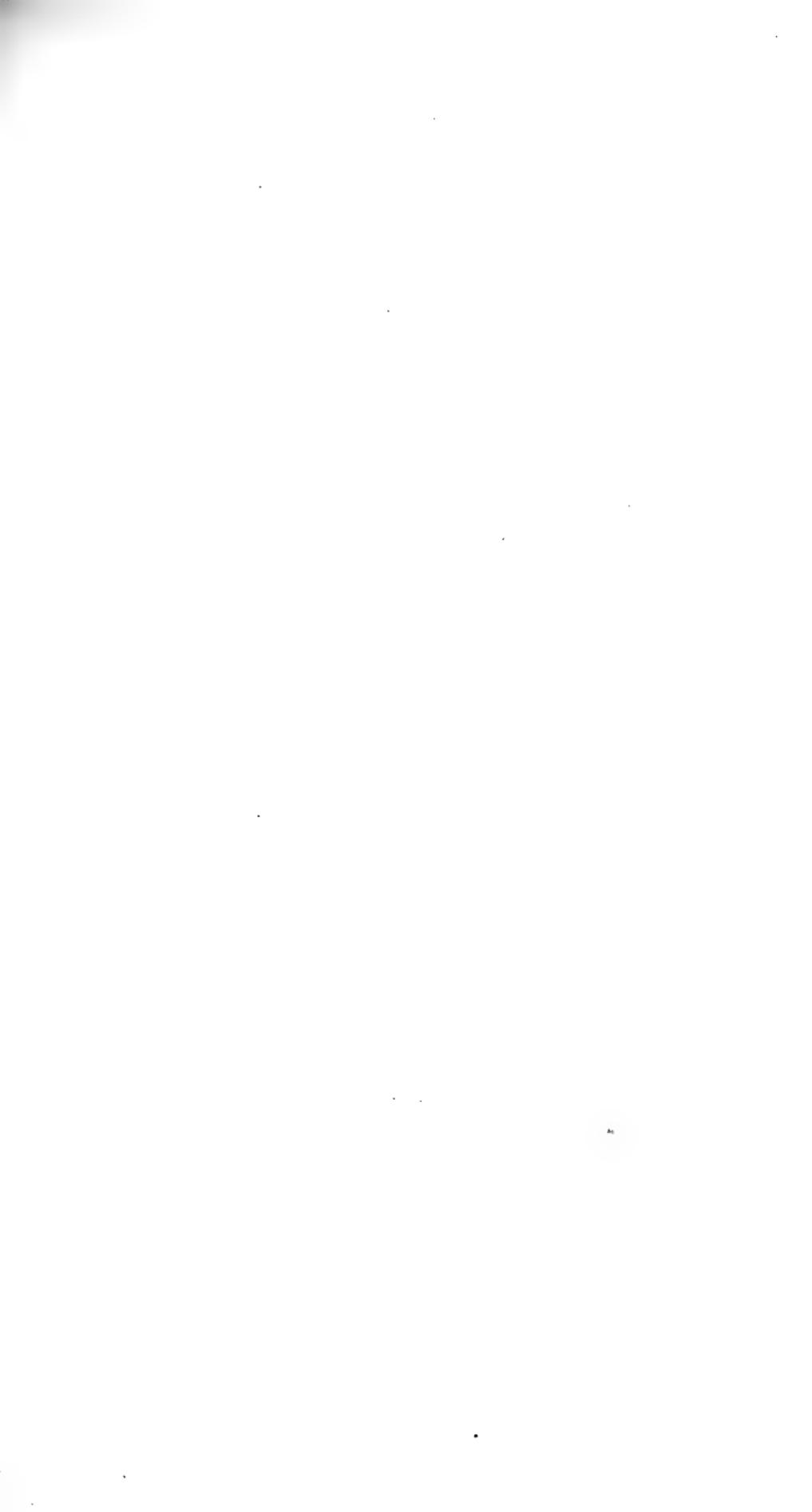
That the present insect is a genuine *Lampyris* of Linnæus admits of no doubt; but in referring it to either of the sections, we should express ourselves with greater caution; for perhaps it ought rather to constitute a distinct genus than be consigned to either. It has the characters of *Pyrochroa*, and yet is allied to *Lycus*. As a species it seems to approach the *Pyrochroa*, called by Herbst *Aurora*, a native of Pomerania; but should it be the same, there must be a deficiency in the character assigned to it by that author, which creates uncertainty; neither the black spot in the disk of the thorax, nor those at the extremity of the wing-cases, being there described: we conclude for these reasons it cannot be the same.

The highly beautiful form of the pectinated antennæ in this elegant little insect contributes to render its general appearance attractive:

the

the form is graceful, and the colours pleasing,—a fine tawny orange diversified with characteristic marks and spots of black. The antennæ are brown except the extreme joint, which is tawny: on the upper surface it will be observed, that in the centra part of the black disk of the thorax is a raised acute line, and on the wing-cases four distinctly prominent striæ, with the interstices deeply punctured. It is perceptible beneath that all the thighs at the base are tawny.







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PLATE LXXVIII.

FIG. I. and FIG. II.

CHRYSMELA BOLETI.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ knotted, enlarging towards the ends. Corselet margined.

SPECIFIC CHARACTER.

Antennæ, head, and thorax black, shining. Elytra black, with two jagged belts of bright orange colour; extremity orange.

Syst. Ent. 97. 18.—*Linn. Syst. Nat.* 2. 591. 36.
—*Fn. Sv.* 52. 7.—*Sulz. Hist. Inf. Tab.* 3.
Fig. 9.

Diaperis, *Geoff. Inf.* 1. 337. *Tab.* 6. *Fig. 3. mal.*

Diaperis, *Schaeff. Elem. Tab.* 58.—*Icon. Tab.* 77. *Fig. 6.*

Dermetes, &c. *Vdm. Diff.* 4. *Fig. 3.*

Tenebrio Boleti, &c. *Degeer Inf.* 5. 49. 9. *Tab.* 3. *Fig. 3.*

Coccinella fasciata. *Scop. Ent.* 247.

The Chrysomela Boleti is not very frequent in this country; it is almost invariably found in the hollows of some of the Boletus tribe of Fungi *, which grow on the stumps of trees in the month of *May* or *June*.

* *Mushrooms.*

FIG. III. and FIG. IV.

CHYSOMELA CERUINA.

COLEOPTERA.

CHYSOMELA.

SPECIFIC CHARACTER.

Oblong. Dull brown, beset with very fine hairs.

Syst. Ent. 116. 1.

Linn. Syst. Nat. 2. 602. 115.—*Fn. Sv.* 575.

There can remain very little doubt of those insects N° III. and N° IV. being sexes of the same species.

Rarely met with near *London*. *May* and *June*.





PLATE DXXVIII.

FIG. I. I.

CANTHARIS FASCIATA.

FASCIATED CANTHARIS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: thorax generally margined, and shorter than the head: wing-cases flexile: sides of the abdomen edged with folded papillæ,

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax greenish: wing-cases blackish, with two red bands.

CANTHARIS FASCIATA. *Linn. Syst. Nat.* 648. 10.—*Fn. Sv.* 711.—*Gmel.* 1899. 10.

MALACHIUS FASCIATUS : elytris nigris : fasciis duabus rufis. *Fab.*
Syst. Ent. 208. 4.—*Sp. Inf.* I. 262. 5.—*Mant.*
I. 169. 8.—*Ent. Syst. I. a.* 224. 13.

Malachius fasciatus. *Oliv. Inf.* 27. 10. 12. *tab. I. fig. 2.*

CANTHARIS FASCIATA : thorace virescente, elytris nigris : fasciis
 duabus rubris. *Marsh. Ent. Brit. T.* 371. 11.

TELEPHORUS FASCIATUS. *De Geer.* 4. 76. 9.

La cicide à bandes rouges. *Geoff. I.* 177. 12.



This is a very gay and pretty insect: the antennæ and legs are black: the head blackish, glossed with shining green, as is likewise the thorax: the wing-cases are dusky purple with a broad band of red across the middle, and another behind formed by the junction of the tips of the wing-cases, the latter being of the same red colour as the band in the middle. The abdomen at the fides are red.

The smallest figure denotes the natural size. This species is found among moss.

FIG. II.

CANTHARIS BIPUSTULATA.

BIPUSTULATED CANTHARIS.

SPECIFIC CHARACTER.

Brassy green: front yellowish: wing-cases red at the tip.

CANTHARIS BIPUSTULATA: aeneo-viridis, fronte flavicante elytris apice rubris. *Marsh. Ent. Brit. T. I. p. 369. 9.*

CANTHARIS BIPUSTULATA. Aeneo-viridis, elytris apice rubris. *Linn. It. oel. 127.—Fn. Suec. 709.—Gmel. Linn. Syft. Nat. 1898. 8.*

MALACHIUS BIPUSTULATUS. *Oliv. Inf. 27. 5. 3. t. I. f. I.—Fabr. Syft. Ent. 208. 2.—Sp. Inf. I. 262. 2. Mant. I. 169. 2.—Ent. Syft. i. a. 222. 2.*

TELEPHORUS BIPUSTULATUS. *De Geer. 4. 75. 7.*

DONACIA ASPARAGORUM. *Panz. Voel. ii. th. 128. 6. t. 46. f. 6.*

La cicinelle verte à points rouges. *Geoff. Inf. I. 175. 8.*



Frequent among grass: the larva rapacious, feeding on smaller insects, and even the grubs of its own tribe and species.







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PLATE CCCCXI.

FIG. I. I.

CLERUS MOLLIS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform, with the three extreme joints largest: head bent down: thorax convex and attenuated behind: wing-cases flexile, body elongated and somewhat oblong.

SPECIFIC CHARACTER

AND

SYNONYMS.

Grey and pubescent, with three paler bands on the wing-cases.

CLERUS MOLLIS: *griseus pubescens, elytris fasciis tribus pallidis.*
Marth. Ent. Brit. T. I. p. 322. n. 2.

ATTELABUS MOLLIS: *Linn. Syst. Nat. 621. n. 11.—Fn. Suec.*
642.

NOTOXUS MOLLIS: *Fabr. Syst. Ent. 158. 1.—Spec. Inf. I.*
203. I.—Mant. I. 127. 3.—Ent. Syst. I.
p. 211. 5.

NOTOXUS MOLLIS: *Gmel. Linn. Syst. Nat. 1813. 3.*

DERMESTES MOLLIS: *Schrank. 37.*

Curculio. *Udd. Diff. 28. t. I. f. 9.*

Le Clairon porte-croix. *Geoffr. I. 305. 3.*

H

VOL. XII.

A rare

A rare insect in England. Inhabits woods. The smallest figure denotes the natural size.

FIG. II. II.

TILLUS BIMACULATUS.

GENERIC CHARACTER.

Antennæ filiform and serrated: head somewhat declining: thorax convex, oblong and attenuated both before and behind: body linear and elongated.

SPECIFIC CHARACTER.

TILLUS BIMACULATUS: blue-black: with a pale ferruginous spot on the wing-caes.

Fabricius describes three species of the genus *Tillus* in his *Entomologia Systematica*, *elongatus*, *ambulans*, & *serraticornis*; all which are found in Europe, and the two first in this country. To these Mr. Marsham adds two other British species, *aeneus* and *virens*; including at the same time, as a fifth species, the *Clerus unifasciatus* of Fabricius. Thus it appears, we possess five described species of this genus in Britain, neither of which agreeing with our present insect, we presume to offer it as a sixth and new species.

Besides the five species of *Tillus* above mentioned, the late Fabrician work, *Suppl. Ent. Syst.* contains two more species, *damicornis*, a native of America, and *Weberi*, a German insect. Neither of those, however, correspond with our insects; and we have therefore

therefore no hesitation in admitting it as a non-descript, as well as new British species.

We have once seen this insect alive in the woods of Kent, but accidentally lost it: the only specimen we now possess is in the cabinet of the late Mr. Drury: and we do not recollect to have ever seen it in any other.

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P L A T E CCXXXI.

F I G. I. I.

ATTELABUS APIARIUS:

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform, thickest towards the apex, and seated on the snout: head pointed behind, and inclined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Slightly hairy: azure: wing-causes red, with three bars of blue, the third, terminal.

ATTELABUS APIARIUS: *Lin. Syst. Nat. 2. 620. 10.*

CLERUS APIARIUS: subnudus cyaneus elytris rubis: fasciis tribus cœruleofuscibus: tertia terminali.—*Geoff. Inf. 1. 304.*
1. tab. 5. fig. 4.—Fab. Ent. Syst. 1. 209. 14.
Degeer. Inf. 5. 157. 1. tab. 5. fig. 3.
Sulz. Inf. tab. 4. fig. 6.

A very local species: we learn that it has been found near Manchester.

F 3

FIG.

FIG. II.

ATTELABUS FORMICARIUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: thorax red: wing-cases, with two bars of white: base red,

ATTELABUS FORMICARIUS: *Linn. Syst. Nat. 2. 620. 8.*

Clerus formicarius. Fab. Ent. Syst. 1, p. 207. 27. 5,

— *niger thorace rufo, elytris fascia duplici alba basique rubris.*

Degeer. Ins. 5. 160, 3. t. 5, f. 8,

Only a few species of this genus have been discovered in this country; and neither of those are very common. We apprehend Attelabus Formicarius is rare, having only met with one specimen of it. It was found in May, on a sand-bank, near Coome Wood, Surry.

FIG. III. III.

DERMESTES PELLIO.

GENERIC CHARACTER.

Antennæ terminated in a perfoliated club: the three extreme articulations thicker than the rest: thorax convex: slightly margined; head inflected, and almost concealed under the thorax.

SPECIFIC



SPECIFIC CHARACTER

AND

SYNONYMS.

Black: a white spot on each wing-cafe.

DERMESTES PELLIO; niger elytris puncto albo. *Lin. Syst. Nat.* 2. 563.—*Fn. Sv.* 411.

DERMESTES PELLIO. *Fab. Ent. Syst.* 1. p. 228. 5.
Oliv. Inf. 2. 9. 11. 10. *tab.* 2. *fig.* 11.
Schæff. Icon. *tab.* 42. *fig.* 4.

A very common and destructive creature. It insinuates itself into all kinds of fur, or the dried skins of animals; and in the state of larva, injures them considerably. The larvæ of this tribe of Insects soon become very numerous where they are suffered to breed: they enter into and destroy furniture, cloathing, and dried food of all kinds. Some species are found feeding upon the carcases of animals; while others, more tenacious of life, penetrate harder substances, and resist the verdigrease, musk, arsenic, and other drying or corrosive substances, that effectually destroy most Insects. One or two species are in particular much to be dreaded by Collectors of Natural Curiosities: they perforate the cabinet, or case, and when the larvæ are hatched, commit vast depredation. In collections of preserved animals, birds, insects, and plants in particular, they do great mischief.

FIG. IV. IV.

DERMESTES SCARABÆOIDES.

SPECIFIC CHARACTER

AND

SYNONYMS.

Ovate black: two red spots on the wing-cases.

DERMESTES SCARABÆOIDES. *Linn. Syft. Nat. 2. 563. 17.—Fn. Sv. 428.*

SPHÆRIDIUM SCARABÆOIDES: ovatum atrum elytris maculis
duabus ferrugineis. *Fab. Ent. Syft. 1. 77. 6. 1.*

Found in dung. Fabricius separates this species from the Dermestides, and places it in the new genus *Sphaeridium*.



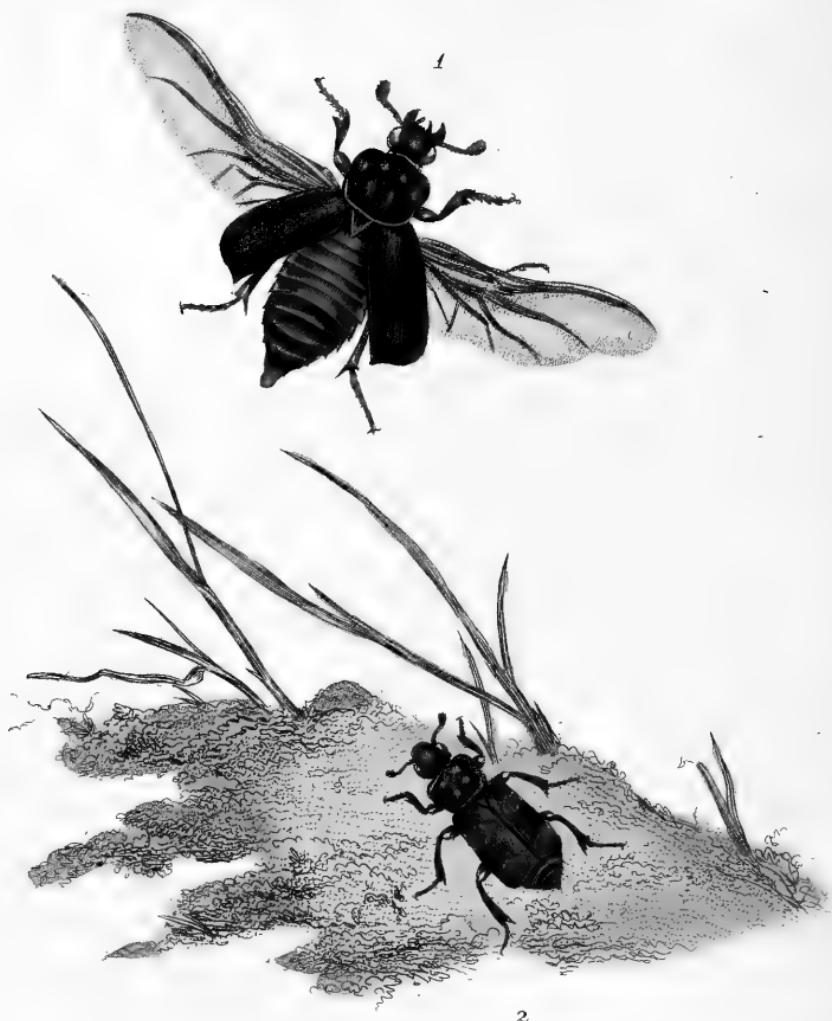


PLATE DXXXVII.

FIG. I.

SILPHA HUMATOR.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, the club perfoliated: wing-caes margined: head prominent: thorax somewhat flattened and margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Oblong, entirely black, except the rufous tip of the antennæ.

SILPHA HUMATOR : oblonga tota atra, antennis apice rufis exceptis.
Marsh. Ent. Brit. T. I. 114. 2.

NICROPHORUS HUMATOR. *Olivier. Inf. 2. 10. 8. 4. tab. I. fig. 2.*
—Fabr. Ent. Syft. T. I. p. 247. n. 2.

DERMESTES. *Geoff. Inf. I. 99, 2.*



Rare in Britain. This insect is similar to the species *Germanica*, but differs in being smaller, and in having the whole of the clavated part

part

part of the antennæ except the first joint rufous. The prevailing colour is black inclining to chocolate ; the head, thorax, wing-cases, extremity of the abdomen and legs, and also the whole of the under surface being of this colour. That part of the abdomen above which is covered by the wings and wing-cases when the insect is at rest is testaceous, and the tip of the abdomen, or tail, the same but rather darker.

FIG. II.

SILPHA MORTUORUM,

SPECIFIC CHARACTER

AND

SYNONYMS.

Oblong, black ; wing-cases with a band and spot of ferruginous : club of the antennæ black.

SILPHA MORTUORUM : oblonga atra, elytris fascia maculaque ferrugineis. *Marsh. Ent. Brit. T. I. 115. 4.*

NICROPHORUS MORTUORUM. *Fabr. Ent. Syst. I. a. 248. 5.*

NICROPHORUS VESPILLOIDES. *Fuefl. Archiv. 89. I.*

Pollinctor vulgaris minor. *Voet. Coleopt. t. 30. 3.*

Similar to *Silpha vespillo*, from which it differs in the following material particulars : it is smaller than *vespillo* : the clavated part of the antennæ is black instead of ferruginous : the rufous orange spaces on





on the wing-cases instead of being disposed in two distinct transverse bands form a single common band across the middle, and a detached spot behind on each of the wing-cases. Sometimes the anterior band is in like manner divided by the surrounding space of black into two distinct reddish spots, one on each wing-case as in the posterior part before described, and by that means exhibits altogether four orange spots, two on each side.—It may be lastly added, that the legs are naked in the species *mortuorum*, while in *S. Vesillo* these are beset with fulvous down.

This insect feeds on carrion and dung, like the other species to which it is closely allied: Panzer has also found it in Fungi.







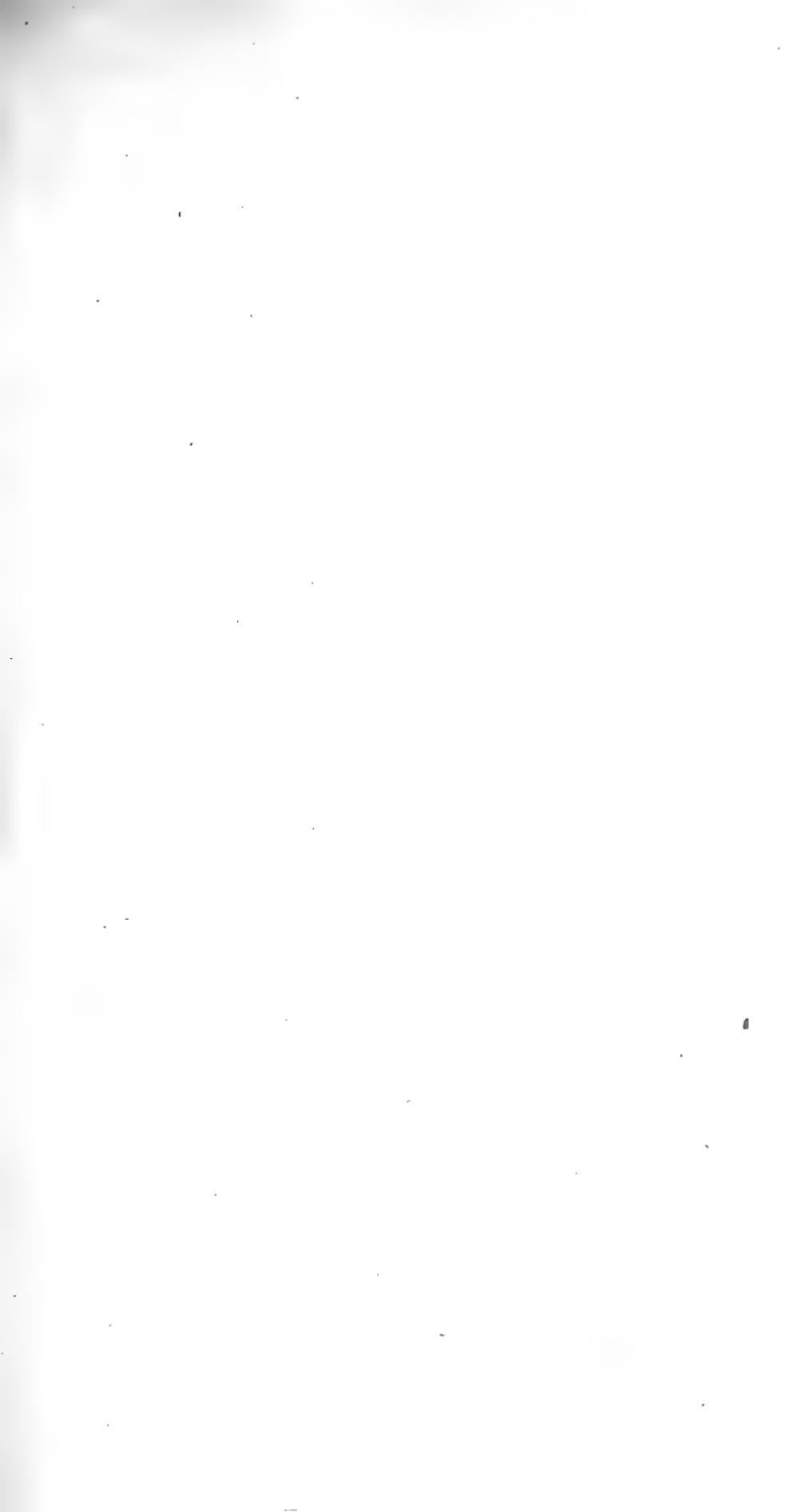




PLATE XXIII.

SILPHA VESPILLO.

DOUBLE ORANGE-BAND SILPHA,

CARRION OR BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, the club perfoliated; wing-cases margined: head prominent: thorax somewhat flattened and margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Oblong, black: shield of the head orbicular and unequal: wing-cases with two sinuate orange or fuscous bands, and the tip of the antennæ fuscous.

SILPHA VESPILLO: oblonga altra, clypeo orbiculato inaequali, elytris fascia dupli ferruginea. *Linn. Fn. Suec.* 444.—*Gmel. Syst. Nat.* 1616. 2.

Nicrophorus ater, elytris fascia dupli ferruginea. *Fabr. Sp. Inf.* 1. p. 84. n. 2.

Dermestes Vespillo. *Scop. Ent. Carn.* 33.

This

This species, like most other coleopterous insects, delights in filth, and is rarely found except in the dung or dead bodies of larger animals, whose decaying entrails they voraciously devour. They feed on the larvæ of insects likewise; they secrete themselves beneath the surface of the ground, and not unfrequently destroy each other.

The grubs of *Silpha Vesillo* are secreted in holes perforated in the earth by the female, and are to be found in following the track of the plough-share, by which they are turned up in abundance: after remaining for some time in the grub state in the earth they assume the pupa form, and lastly appear in the winged state in June or July. About mid-day, when the sun shines, they are found on dry banks, and in path-ways. They fly well by means of the filmy or transparent wings which are concealed under the short wing-cases when the insect is at rest. The male is rather smaller than the female, and the orange belts are of a deeper hue: though both male and female vary a little in brightness of colour when alive; they also fade in some degree after death, whatever may be the care of the collector to prevent it.

1



2



PLATE DXXXIX.

FIG. I. II.

SILPHA SINUATA.

SINUATE SILPHA.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, the club perfoliated: wing-caes margined: head prominent: thorax somewhat flattened and margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax emarginate and very rough: wing-caes with three raised lines, and the tip sinuate.

SILPHA SINUATA: thorace emarginate rugosissimo: elytris lineis elevatis tribus apice sinuatis. *Marsh. Ent. Brit. T. I.* 120. 14.

SILPHA SINUATA. *Fabr. Syft. Ent.* 75. 13.—*Sp. Inf. I.* 88. 16.—*Ent. Syft. I. a.* 252. 18.—*Gmel.* 1622. 56.

Le Bouclier noir a corcelet raboteux. *Geoff. I.* 119. 2.

This

This is a species of moderate size, allied in habit to *Silpha obscura*. The prevailing colour is blackish, inclining to grey, dull and without gloss: the thorax is brownish and rugose, with a silky hue and somewhat silvery. The two sexes are distinguished by the termination of the wing-cases, this in one being much sinuated, and forming a distinct lobe, the other nearly entire.—This last mentioned insect is the *Silpha opaca* of some writers.

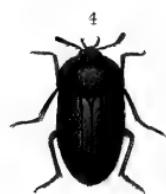


PLATE LXIII.

FIG. I.

SILPHA THORACICA.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, foliated. Head prominent. Thorax margined.

SPECIFIC CHARACTER.

Black. Three longitudinal lines on each shell. Thorax red-brown.

Syft. Ent. 73. 6.—*Linn. Syft. Nat.* 2. 571. 13.—
Fn. Sv. 452.—*Stroem. Act. Nidros.* 3. *Tab.* 6.
Fig. 1.

Silpha. Degeer Ins. 4. 174. 3. *Tab.* 6. *Fig.* 7.

Peltis nigra, &c.—*Geoff. Ins.* 1. 121. 6.

Scarabæus.—*Raj. Ins.* 90. 10.

Casida nigra, &c.—*Gadd. Satag.* 25.

Silpha Thoracea. Scop. carn. 54.

Bergstr. Nomencl. 1. 23. 5. *Tab.* 3. *Fig.* 5.

Schaeff. Icon. *Tab.* 75. *Fig.* 4.

Sulz. Ins. *Tab.* 2. *Fig.* 12.

Taken at Charlton in June. It is a very rare species in every part of this country, though not unfrequent in Germany.

PLATE LXIII.

FIG. II. III.

CASSIDA CRUENTATA.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ knotted, enlarging towards the ends. Shells and thorax bordered. Head concealed under the corselet.

SPECIFIC CHARACTER.

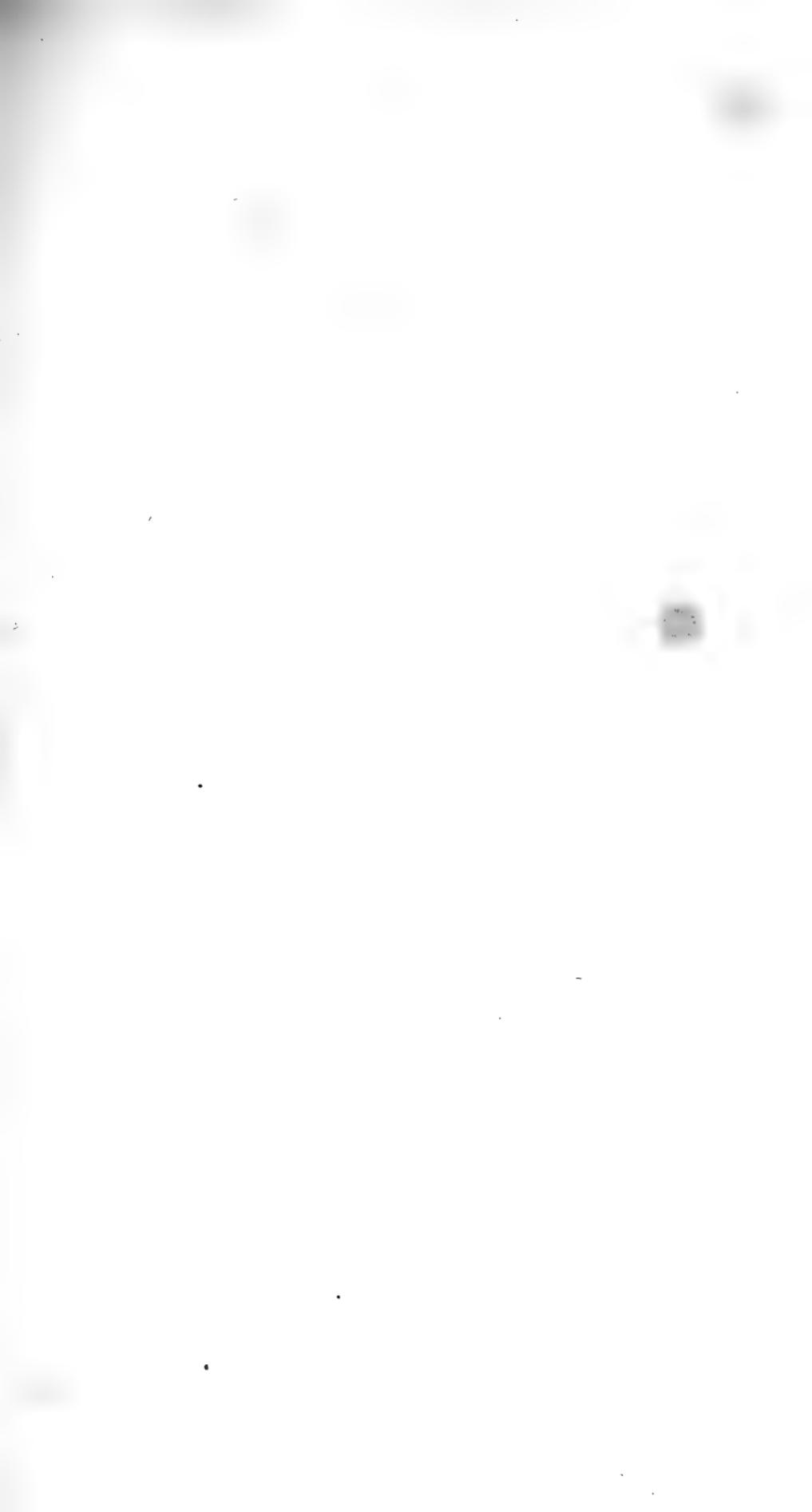
Bright green above, on each shell near the scutellum a very bright sanguineous mark. Beneath, body and thighs black. Legs and feet light brown.

Is found on verticillated plants and thistles in May.

Although confounded by some with the common Cassida (*C. Viridis*), it differs very essentially from that insect: it is smaller; of a deeper green colour, and does not fade to a dirty brown after death: but the bright sanguineous marks on the shells are scarcely visible in a dead specimen; the former is very common in May, but our species is rare.

C. Cruentata has never been either described or figured before.

FIG.



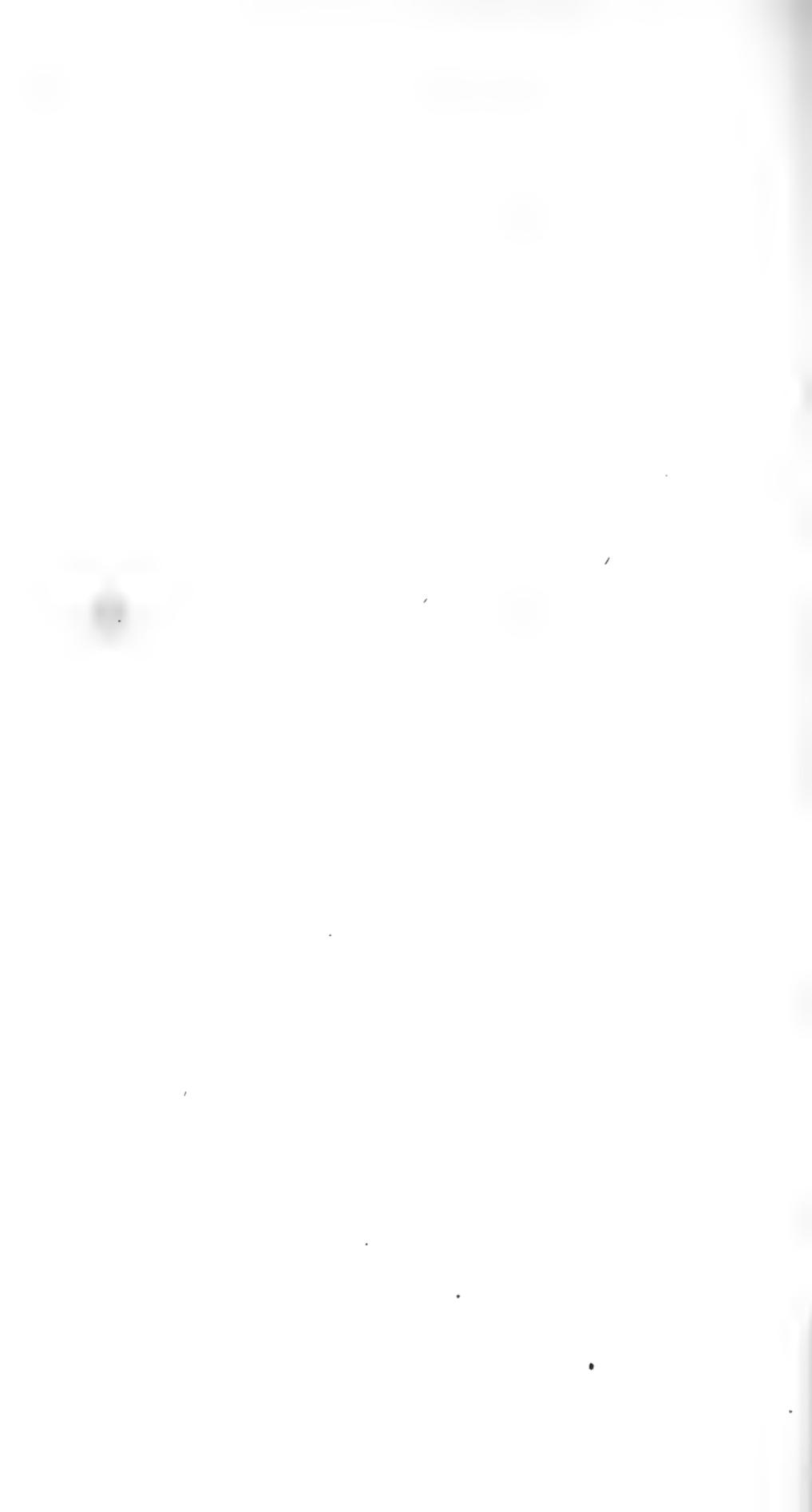


FIG. IV.

SILPHA OBSCURA.

COLEOPTERA.

SILPHA.

SPECIFIC CHARACTERS.

Entirely black. Shells punctured; with three longitudinal lines on each.

Syst. Ent. 74. 11.—*Linn. Syst. Nat.* 2. 572. 18.

—*Fn. Sv.* 457.—*Scop. carn.* 57.

CASSIDA. *Udm. Diff.* 8.

Very frequent in May: breeds in corn-fields and meadows; but is found in many other situations.

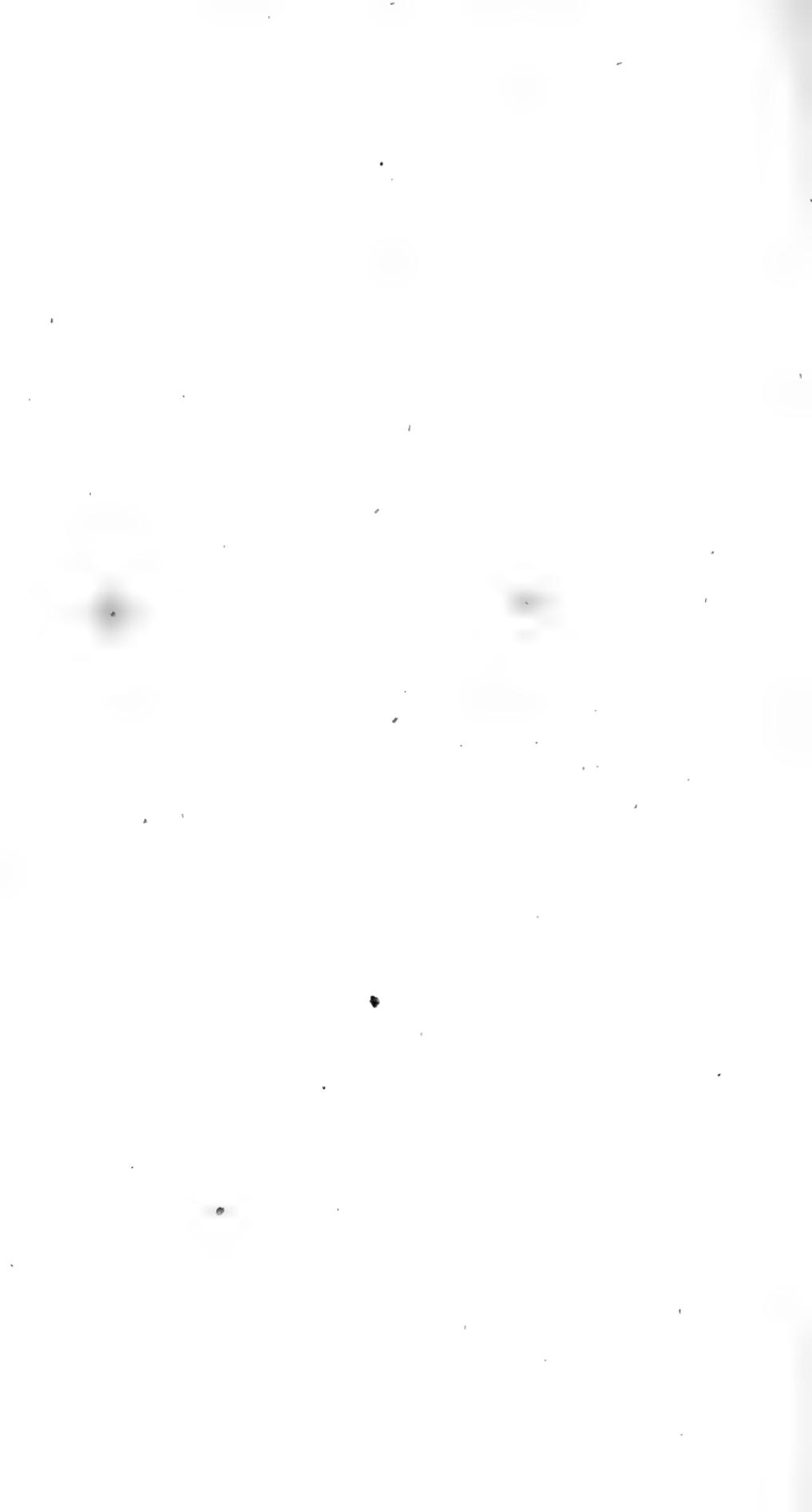






PLATE CCCVIII.

STAPHYLINUS ERYTHROPTERUS.

GENERIC CHARACTER.

Antennæ moniliform. Elytra not half the length of the abdomen. Wings folded, and concealed under the elytra.

SPECIFIC CHARACTER

AND

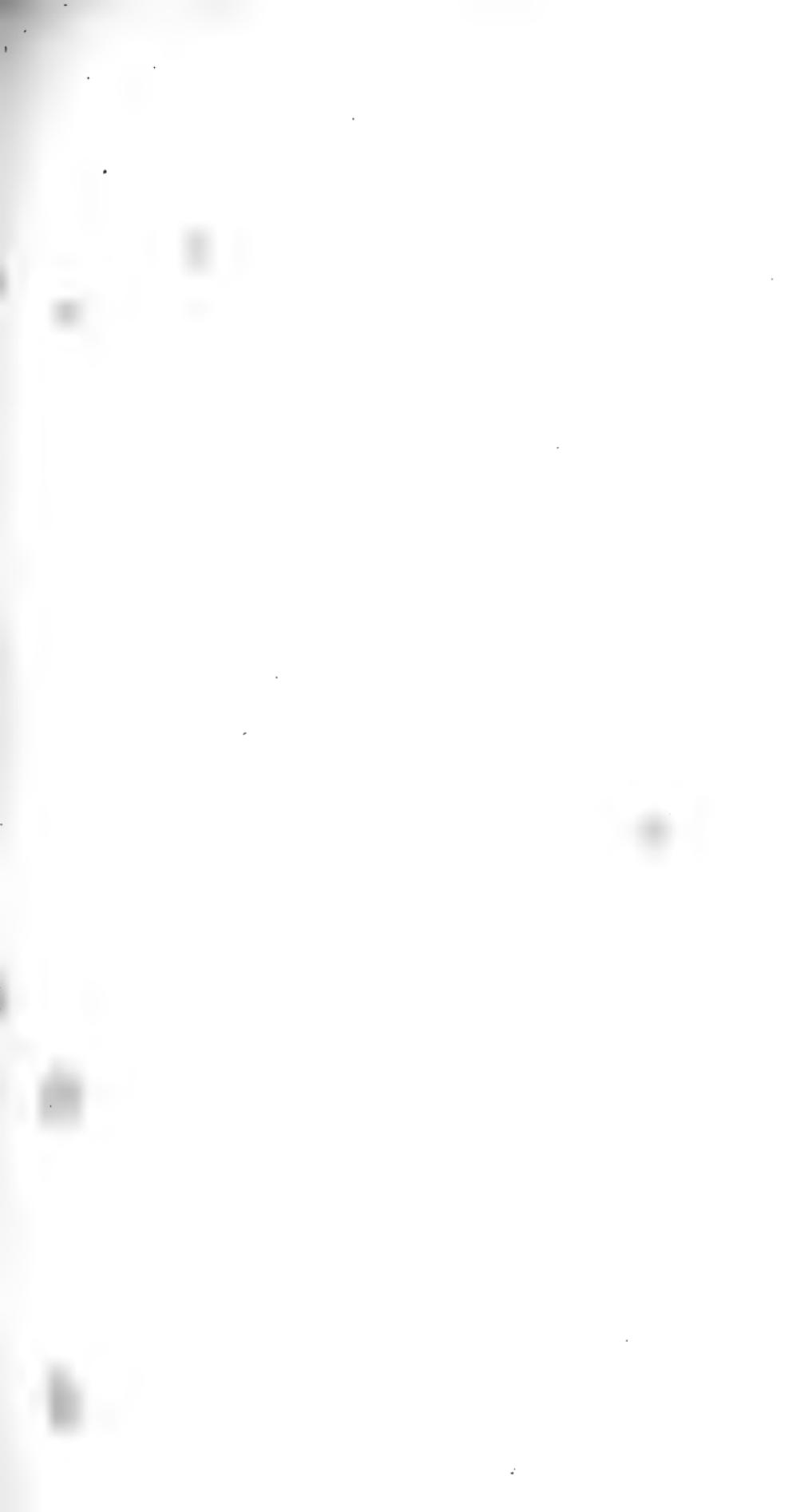
SYNONYMS.

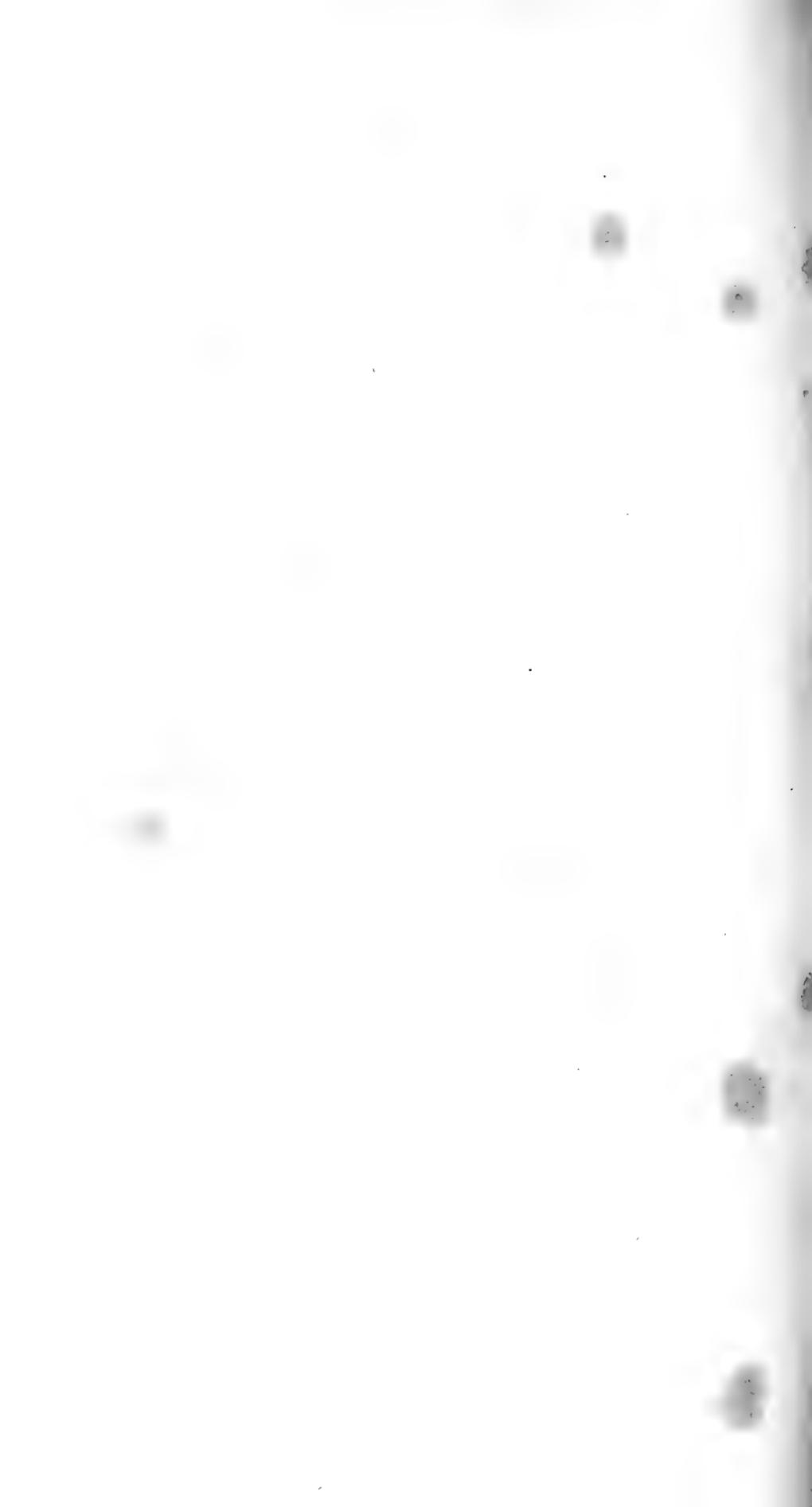
Black. Wing-cases, antennæ, and legs red.

STAPHYLINUS ERYTHROPTERUS: ater, elytris, antennarum basi pedibusque rufis.—*Fn. Suec.* 842. *Gmel. Linn. T.* 1. *p. 4. p. 2027. sp. 4.*
Fab. Ent. Syft.
Degeer. Inf. 4. p. 21. n. 6.
Schæff. Elem. tab. 117.
—Icon. tab. 2. fig. 2.

Found in general in moist or sandy places.







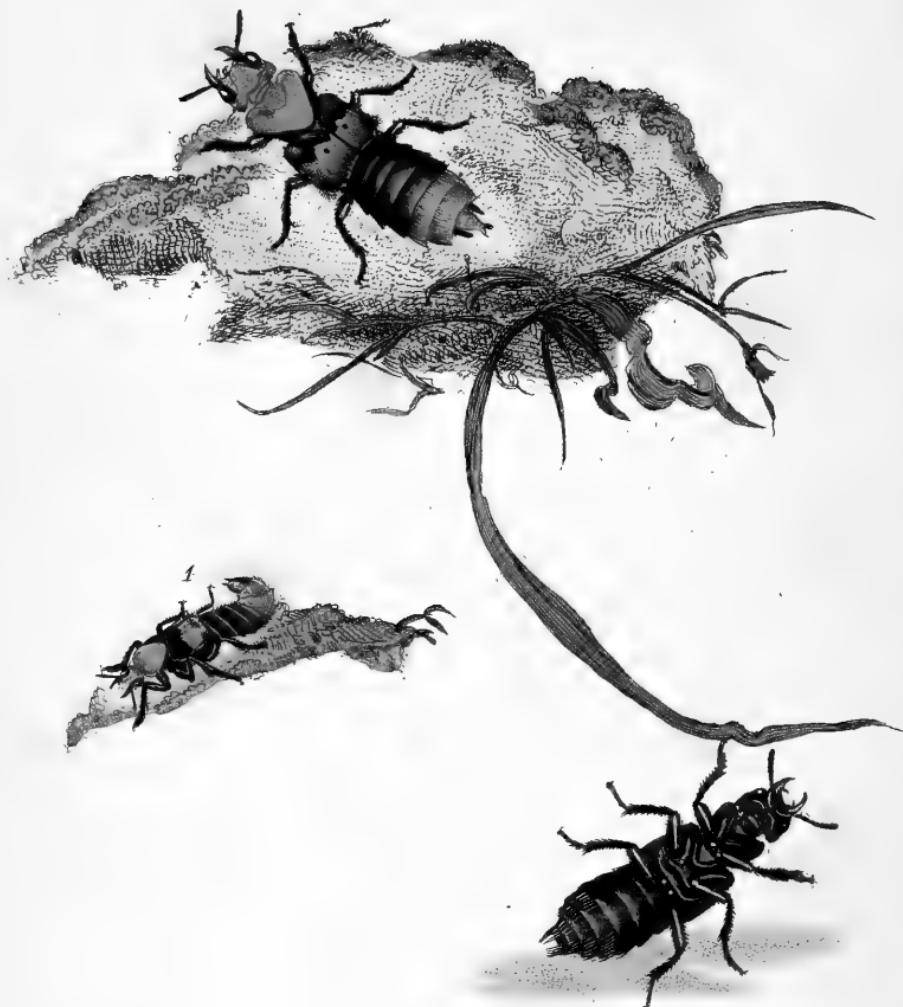


PLATE DLII.

STAPHYLINUS HIRTUS.

HAIRY STAPHYLINUS, or ROVE-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform: feelers four: wing-cafes half as long as the body: wings folded up under the wing-cafes: tail armed with a pair of forceps, and furnished with two exfertile vesicles.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Hairy, black: thorax and posterior part of the abdomen yellow.

STAPHYLINUS HIRTUS: hirsutus niger, thorace abdomineque pos-
tice flavis. *Linn. Syst. Nat.* 683. 1.—*Fn. Suec.*
839.—*Gmel. Linn. Syst.* 2025. 217. 1.
Fabr. sp. inf. 1. *p.* 334. *n.* 1.—*Mant. Inf.* 1. *p.*
219. *n.* 2. *Ent. Syst.* 1. *b.* 519. 2.

Staphylinus niger villosus, &c.—Le Staphylin bourdon. *Geoffr. Inf.*
par. 1. *p.* 363. *n.* 7.

Staphylinus bombylius. *Deger 4.* 20. 5.

STAPHYLINUS HIRTUS. *Marsh. Ent. Brit. T.* 1. *p.* 496. 1.

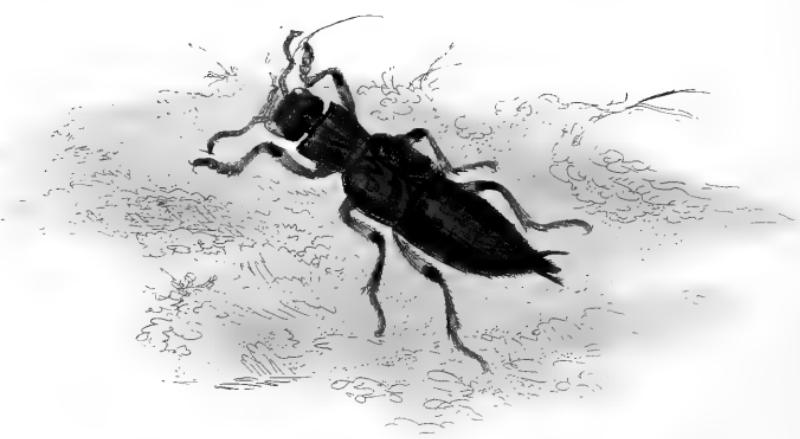


The largest and most interesting species of the *Staphylinus* genus found in this country, and also one of the most uncommon.

In

In *Entomologia Britannica* it stands recorded as a British species, and though esteemed rare, it usually occurs in the best cabinets. It is said to inhabit sandy places, and is also found among moss concealed or lying under stones. Mr. Comyns has met with it in Devonshire. We once saw it on the wing in a thicket in Coombe Wood, Surrey.





P L A T E DLXIII.
STAPHYLINUS HYBRIDUS.

HYBRID ROVE BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform: feelers four: wing-cases half as long as the body: wings folded up under the wing-cases: tail simple, and furnished with two exsertile vesicles.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Pubescent, golden-fulvous, or greyish clouded with blackish: abdomen black at the tip: thighs annulated with yellow.

STAPHYLINUS HYBRIDUS: fulvo-aureo-pubescent nigro nebulosus, abdomine apice nigro, femoribus annulo flavo.
Marsh. Ent. Brit. T. 1. p. 500. 9.

A new species discovered by the Rev. Mr. Kirby in the middle of October, 1799. Since that period it has been found by Dr. Leach and other collectors. It appears to be not very uncommon in some places; and usually occurs in the dung of animals.



PLATE DLXXIII.

FIG. I. I.

STAPHYLINUS ANGUSTATUS.

NARROW ROVE-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform: feelers four: wing-cases half as long as the body: wings folded up under the cases: tail not armed with a forceps, furnished with two exsertile vesicles.

SPECIFIC CHARACTER

AND

SYNONYMS.

Filiform, black: tip of the wing-cases and legs testaceous.

STAPHYLINUS ANGUSTATUS: filiformis ater elytris apice pedibusque testaceis. *Paykull. Monogr. 36. 27.—Fabr. Ent. Syst. T. 1. p. 2. p. 528. Panz. Ent. Germ. 356. 31.*

STAPHYLINUS ANGUSTATUS. *Marsh. Ent. Brit. T. 527. 83.*

A small species.

PLATE DLXXIII.

FIG. II. II.

STAPHYLINUS BIGUTTATUS

BIGUTTATE ROVE-BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: wing-cases with a yellow dot.

STAPHYLINUS BIGUTTATUS: *niger, elytris puncto flavo.* *Linn.*
Syst. Nat. 685. 15.—*Fn. Su.* 851.—*Gmel.* 2029.
 15.—*Fab. Ent. Syst.* 1. b. 527. 36.—*Sp. Inf.* 1.
 336. 13.—*Marsh. Ent. Brit. T.* 1. p. 526. 81.

STAPHYLINUS JUNO var β . *Paykull Monogr.* 25.LE STAPHYLIN JUNON. *Geoffr.* 1. 371. 24.

Twice the size of the former.

STAPHYLINUS ELONGATUS.

ELONGATED ROVE-BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: wing-cases behind, with the legs, and antennæ ferruginous.

STAPHYLINUS

STAPHYLINUS ELONGATUS: niger, elytris postice pedibus anten-
nisque ferrugineis. *Linn. Syst. Nat.* 685. 14.—
Marsh. Ent. Brit. T. 1. p. 515. 52.

Paederus elongatus. *Fabr. Syst. Ent.* 268. 2.

Oblong, and glabrous; found in dung.



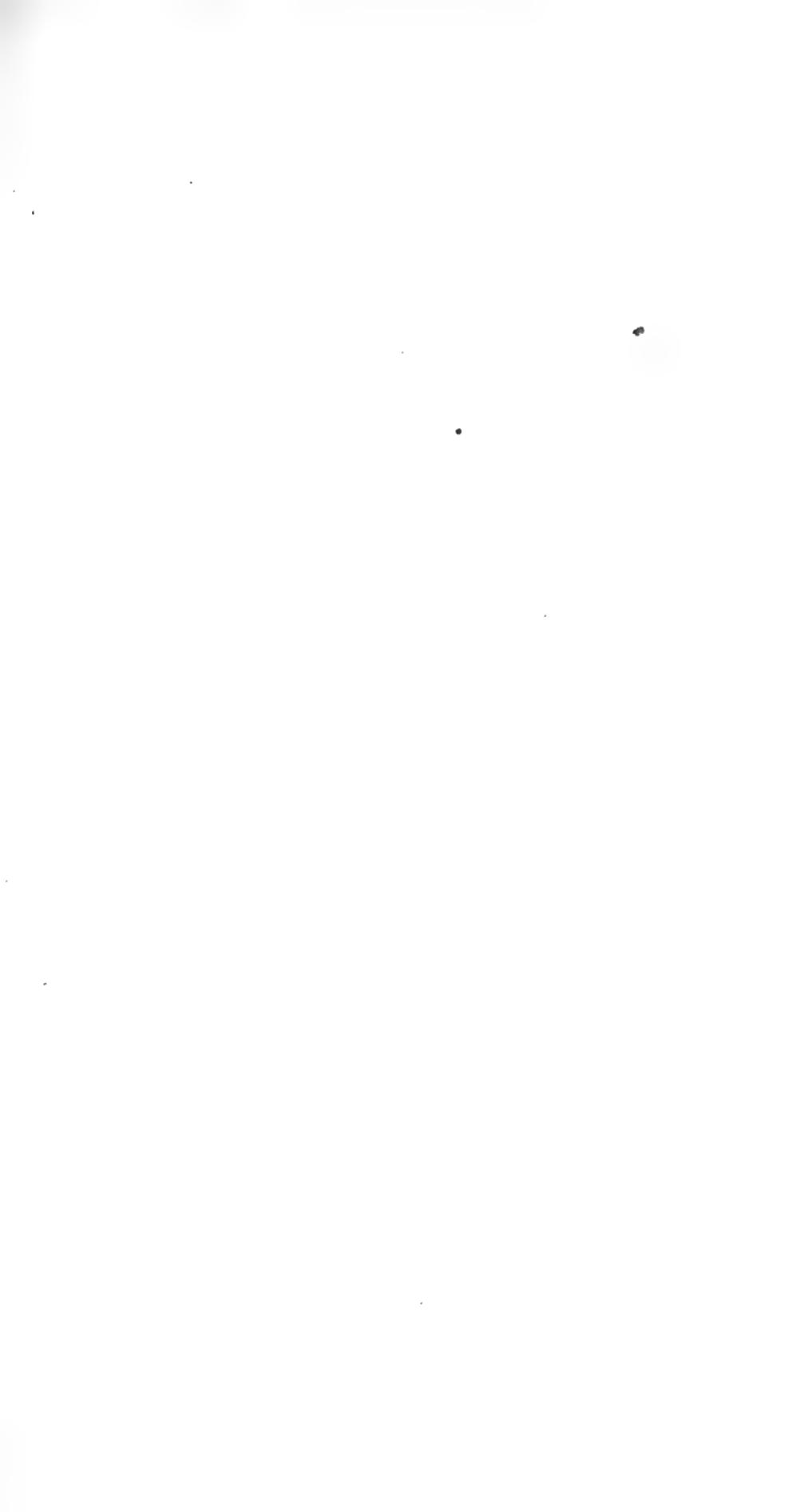








PLATE CLXVII.

STAPHYLINUS RIPARIUS.

BANK ROVE-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform*. Elytra not more than half the length of the abdomen. Wings concealed. Tail armed with two oblong vesicles.

SPECIFIC CHARACTER

AND

SYNONYMS.

Red-brown. Shells blue. Head and end of the abdomen black.

STAPHYLINUS RIPARIUS : *Lin. Syst. Nat.* n. 8. p. 684. *Ed.* 13.
n. 9. p. 2038.—*Fn. Sv.* n. 846.

Staphylinus gregarius. *Scop. Carn.* n. 308. *ic.* 308.

Staphylin de rivages. *Degeer. Inf.* 4. p. 28. n. 14. *tab.* 1. *fig.* 18.

Geoffr. Inf. 1. n. 21. p. 369.

Paykull. monogr. Staphyl. n. 19. p. 27.

Schäff. Icon. Inf. Ratib. *tab.* 71. *fig.* 3.

Harrer Beschr. d. Schäff. Inf. 1. *Th.* n.

417. p. 253.

PEDERUS RIPARIUS : *rufus elytris coeruleis, capite abdominalisque apice nigris.* *Fab. Syst. Ent.* 1. p. 168.—

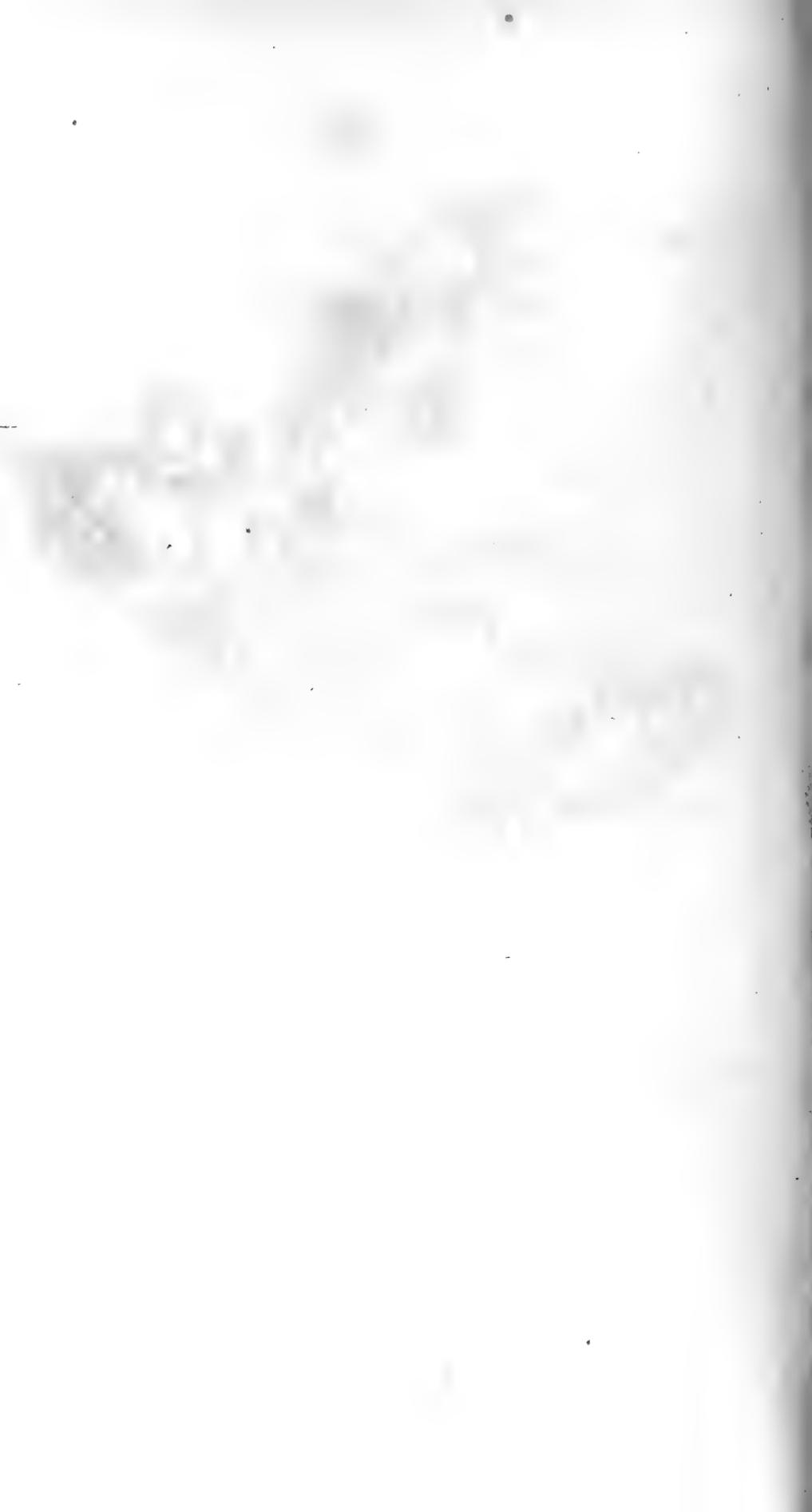
Spec. Inf. T. 1. p. 339.—*Mant. Inf.* 1. p. 223.—*Ent. Syst.* 2. p. 536.

Der Strandtraubenkäfer. Der Uferraubkäfer. *Panz. Faun. Inf. Germ.* *Inhalt des neunten Hefts.* *tab.* 11.

* Like a necklace of small beads.

The Staphylini were formerly known among English collectors by the general appellation *Rove Beetles*; we have in the present instance adopted this English name, and added the only specific distinction which occurs likely to convey the meaning of Linnæus, when he named it *Riparius*.

All the insects of this genus are very voracious. The larvæ so much resemble the perfect insects, that they can hardly be distinguished from them. *Staphylinus Riparius* is found in most parts of Europe. It frequents moist sandy places, and the sides of banks. Found in May. The natural size and magnified appearance is given in the annexed plate.



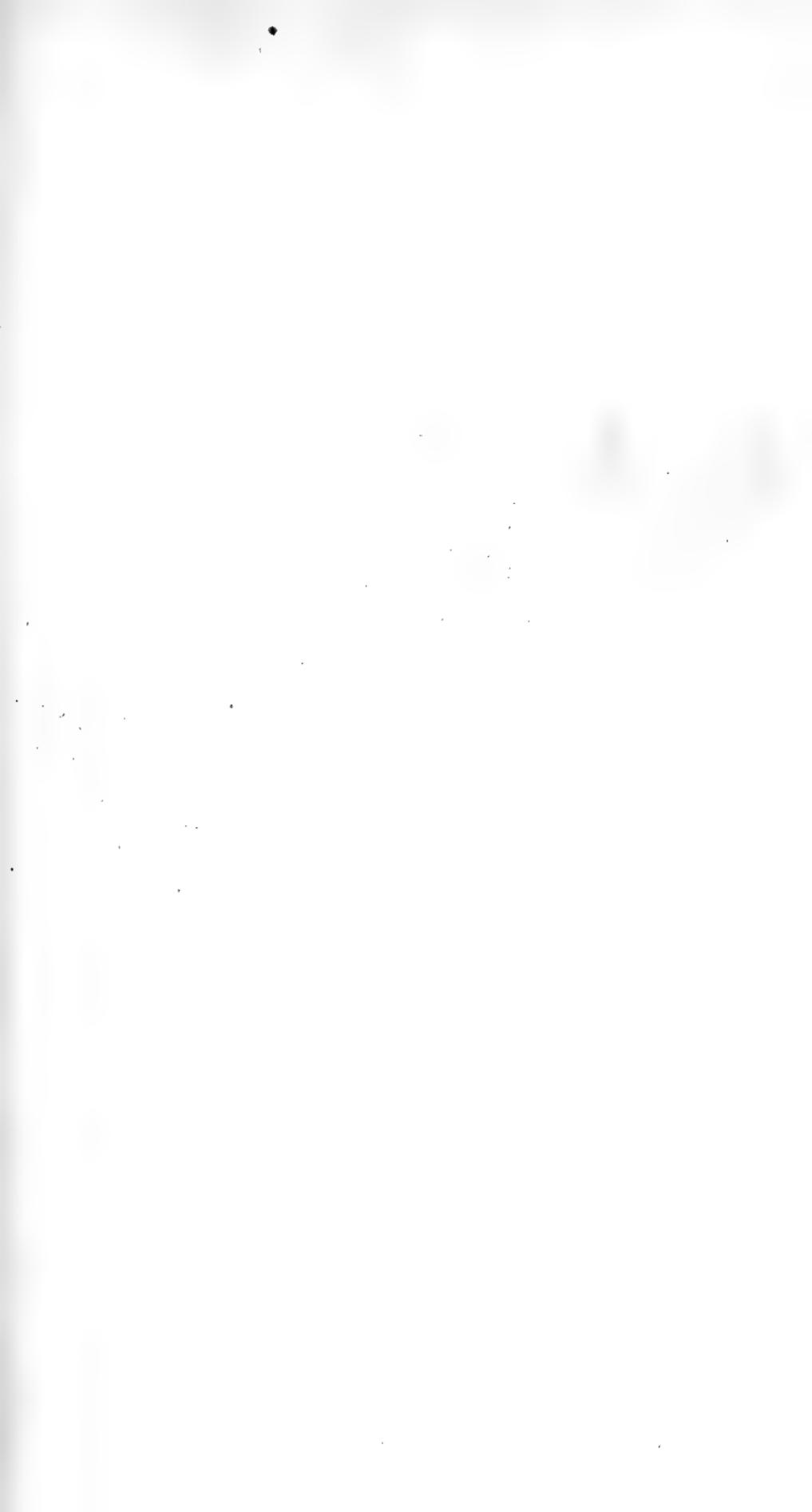




PLATE DXXXII.

FIG. I. I.

STAPHYLINUS LUNULATUS.

LUNULATED ROVE-BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform: feelers four: wing-cases half as long as the body: wings folded up under the wing-cases: tail armed with a forceps, and furnished with two exsertile vesicles.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax and abdomen orange: wing-cases black with two orange sublunate spots at the base: extremity of the abdomen black, with a pale band.

STAPHYLINUS LUNULATUS: rufus, capite abdominis elytrorumque posticis nigris, femoribus totis rufis. *Linn. Fn. Sv. 845.—Gmel. 2037. 7.—Paykull. Monogr. 41.*

OXYPORUS LUNULATUS : *flavus elytris nigris basi apiceque pallidis.*

Fabr. Syst. Ent. 268. 2.—Sp. Inf. i. 338. 2.—

Mant. i. 219. 2.—Ent. Syst. I. b. 532. 3.

STAPHYLINUS LUNULATUS. *Marsh. Ent. Brit. T. I. 523. 72.*



A minute and very beautiful species, found in the dung of cattle.—The natural size of this, and the other two interesting little species represented in the annexed plate, is denoted by the smaller figures. *Staphylinus lunulatus* is a native of the northern parts of Europe, being found in Sweden and Denmark, as well as Britain, and extends likewise as far southward as Germany and France.

FIG. II. II.

STAPHYLINUS MARGINATUS.

MARGINATED ROVE-BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black : sides of the thorax, two dots on the anterior part of the wing-cases, with the posterior margin, and the legs rufous.

STAPHYLINUS

STAPHYLINUS MARGINATUS: ater thoracis lateribus pedibusque flavis. *Fabr. Syst. Ent.* 266. 8.—*Sp. Inf. i.* 336. 9.—*Mant. i.* 22. 15.—*Ent. Syst. i. b.* 526. 50.
Paykull. Monogr. 32.—*Fn. Suec. iii.* 392. 32.
Gmel. Syst. Nat. 2028. 36.

OXYPORUS MARGINELLUS. *Panz. Ent. Germ.* 355. 21.

STAPHYLINUS MARGINATUS: ater, thoracis lateribus pedibusque rufis. *Marsh. Ent. Brit.* 512. 40.

Fabricius describes this species as a native of England and Norway.

FIG. III. III.

STAPHYLINUS BIPUSTULATUS.

BIPUSTULATED ROVE-BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: wing-cases with two ferruginous dots.

STAPHYLINUS BIPUSTULATUS: niger, elytris puncto ferrugineo.
Marsh. Ent. Brit. T. I. 527.

STAPHYLINUS

STAPHYLINUS BIPUSTULATUS. *Fabr. Syft. Ent.* 266. 11.—*Sp.*
Inf. i. 336. 12.—*Mant.* i. 221. 18.—*Ent. Syft.*
i. b. 526. 34.

OXYPORUS BIPUSTULATUS. *Panz. Faun. Germ.* 27. t. 10.

Inhabits various parts of Europe.



